

CODE OF FEDERAL REGULATIONS



TITLE 47—TITLE 48
Revised, 1953

**CONTAINING A CODIFICATION OF DOCUMENTS OF GENERAL APPLICABILITY AND
FUTURE EFFECT AS OF DECEMBER 31, 1953**

With Ancillaries and Index

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Industrial Radiolocation Service to licensees in the Disaster Communications Service.

(10) All construction permits for radiopositioning stations in this band are granted subject to the condition that the permittee, at the time of filing for station licenses, accompany such applications with a comprehensive plan defining in detail the means of notification which have been agreed upon by the permittee and the licensees of Disaster Communications Service stations in the area. The notification plan shall be kept current by the licensee, through successive modifications as may be necessary, to incorporate stations in the Disaster Communications Service which subsequently may be authorized to operate in the same interference area. A copy of this notification plan and of all subsequent modifications shall be filed at the following points: The Commission's offices at Washington 25, D. C.; the offices of the Engineer in Charge of the Radio District in which the radiopositioning station is located; and the offices of the Engineer in Charge of the Radio District or Districts in which are located the Disaster Communications Service stations involved in the plan.

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AUTHORITY: §§ 12.0 to 12.257 issued under sec. 4, 48 Stat. 1066, as amended; 47 U. S. C. 154. Interpret or apply sec. 303, 48 Stat. 1082, as amended; 47 U. S. C. 303.

SOURCE: §§ 12.0 to 12.257 appear at 18 F. R. 7587, Nov. 28, 1953.

SUBPART A—AMATEUR RADIO STATIONS AND OPERATORS

§ 12.0 *Basis and purpose.* The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the amateur radio service through rules which provide for advancing skills in both the communication and technical phases of the art.

(d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

(e) Continuation and extension of the amateur's unique ability to enhance international good will.

DEFINITIONS

§ 12.1 *Amateur service.* The term "amateur service" means a radio service carried on by amateur stations.

§ 12.2 *Amateur operator.* The term "amateur operator" means a person interested in radio technique solely with a personal aim and without pecuniary interest, holding a valid license issued by the Federal Communications Commission authorizing him to operate licensed amateur stations.

§ 12.3 *Amateur station.* The term "amateur station" means a station used

by an amateur operator, and it embraces all radio transmitting apparatus at a particular location used for amateur service and operated under a single instrument of authorization.

§ 12.4 *Amateur portable station.* The term "amateur portable station" means an amateur station that is so constructed that it may conveniently be moved about from place to place for communication, but which is not operated while in motion.

§ 12.5 *Amateur mobile station.* The term "amateur mobile station" means an amateur station that is so constructed that it may conveniently be transferred to or from a mobile unit or from one such unit to another, and is ordinarily used while such mobile unit is in motion.

§ 12.6 *Amateur radio communication.* The term "amateur radio communication" means radio communication between amateur stations solely with a personal aim and without pecuniary interest.

§ 12.7 *Remote control.* The term "remote control" as applied to the amateur radio service, means control of transmitting equipment of an amateur station from an operating position other than one at which the transmitter is in view and immediately accessible; except that, direct mechanical control or direct electrical control by wired connections of an amateur transmitter from a point located on board any aircraft, vessel or vehicle on which such transmitter is located shall not be considered remote control within the meaning of this definition.

§ 12.9 *Antenna structure defined.* The term "antenna structure" includes the radiating system and its supporting structures.

§ 12.10 *Aircraft landing area defined.* An aircraft landing area means any locality, either on land or water, including airports and intermediate landing fields, which is used, or approved for use, for landing and take-off of aircraft whether or not facilities are provided for the shelter, servicing, or repair of aircraft, or for the receiving or discharging of passengers or cargo.

AMATEUR OPERATORS LICENSES, PRIVILEGES

§ 12.20 *Classes of amateur operator licenses.*

Amateur extra, class.
Advanced class (previously class A).
General class (previously class B).
Conditional class (previously class C).
Technician class.
Novice class.

§ 12.21 *Eligibility for license.* Persons are eligible to apply for the various classes of amateur operator licenses as follows:

(a) *Amateur extra class.* Any citizen of the United States who either (1) at any time prior to receipt of his application by the Commission has held for a period of two years or more a valid amateur operator license issued by the Federal Communications Commission, excluding licenses of the Novice and Technician Classes, or (2) submits evidence of having held a valid amateur radio station or operator license issued by any agency of the United States Government during or prior to April, 1917.

(b) *Advanced class.* New Advanced Class amateur operator licenses will not be issued; however, Advanced Class (or Class A) licenses may continue to be renewed as set forth in § 12.27.

(c) *General class.* Any citizen of the United States.

(d) *Conditional class.* Any citizen of the United States whose actual residence and amateur station location are more than 125 miles air line distant from the nearest location at which examinations are held at intervals of not more than 3 months for General Class amateur operator license; or who is shown by physician's certificate to be unable to appear for examination because of protracted disability; or who is shown by certificate of the commanding officer to be in the armed forces of the United States at an Army, Navy, Air Force or Coast Guard station and, for that reason, to be unable to appear for examination at the time and place designated by the Commission.

(e) *Technician class.* Any citizen of the United States.

(f) *Novice class.* Any citizen of the United States except a former holder of an amateur license of any class issued by any agency of the United States government, military or civilian.

§ 12.22 *Application for amateur operator license.* The application for any new amateur operator license, including application for any change in operating privileges, shall be submitted in person

or by mail to the district field office of the Commission at which the applicant desires his application to be considered and acted upon, which office will make the final arrangements for conducting any required examination. If the application is for a license which is obtained upon successful completion of an examination by volunteer examiners under the special provisions of § 12.44 (c), the application shall be submitted to the district field office which supplied the examination material. Applications for renewal or modification of license, or for duplicate license, when no change in operating privileges is involved, shall be filed directly with the Commission at its Washington 25, D. C. office.

§ 12.23 *Classes and privileges of amateur operator licenses*—(a) *Amateur extra class.* All authorized amateur privileges including such additional privileges in both communication and technical phases of the art which the Commission may consider as appropriately limited to holders of this class of license.

(b) *Advanced class.* All amateur privileges except those which may be reserved to holders of the Amateur Extra Class license.

(c) *General and Conditional classes.* All authorized amateur privileges.

(d) *Technician class.* All authorized amateur privileges in the amateur frequency bands above 220 megacycles.

(e) *Novice class.* Those amateur privileges as designated and limited as follows:

(1) The d. c. plate power input to the vacuum tube or tubes supplying power to the antenna shall not exceed 75 watts.

(2) Only the following frequency bands and types of emission may be used, and the emissions of the transmitter must be crystal-controlled:

(i) 3700 to 3750 kc, radiotelegraphy using only type A-1 emission in accordance with the geographical restrictions set forth in § 12.111.

(ii) 7175 to 7200 kc, radiotelegraphy using only type A-1 emission.

(iii) 21.10 to 21.25 Mc, radiotelegraphy using only type A-1 emission.

(iv) 145 to 147 Mc, radiotelegraphy or radiotelephony using any type of emission except pulsed emission and type B emission.

§ 12.25 *Availability of operator license.* The original operator license of each operator shall be kept in the personal possession of the operator while operating an amateur station. When operating an amateur station at a fixed location, however, the license may be posted in a conspicuous place in the room occupied by the operator. The license shall be available for inspection by any authorized Government official whenever the operator is operating an amateur station and at other times upon request made by an authorized representative of the Commission, except when such license has been filed with application for modification or renewal thereof, or has been mutilated, lost or destroyed, and application has been made for a duplicate license in accordance with § 12.26. No recognition shall be accorded to any photocopy of an operator license; however, nothing in this section shall be construed to prohibit the photocopying for other purposes of any amateur radio operator license.

§ 12.26 *Duplicate license.* Any licensee applying for a duplicate license to replace an original which has been lost, mutilated, or destroyed, shall submit with the application the mutilated license or a statement setting forth the facts regarding the manner in which the original license was lost or destroyed. If, subsequent to receipt by the licensee of the duplicate license, the original license is found, either the duplicate or the original license shall be returned immediately to the Commission.

§ 12.27 *Renewal of amateur operator license.*¹ (a) An amateur operator license except the Novice Class, may be renewed upon proper application in

¹ Until further order of the Commission, the showing that the applicant actually operated an amateur radio station or stations for the periods of time specified in § 12.27 will not be required in cases where it is shown that the applicant was unable to conduct such operation because he was on active duty in the armed forces of the United States or was duly enrolled as an employee of an agency of the Federal Government and in the course of such employment was on duty in a foreign country continuously during the last year of the license term: *Provided*, That any such employee of the Federal Government shall submit with his application for renewal of license a statement signed by his agency head, or the chief of the Bureau or Division in which he is employed attesting to such employment.

which it is stated that the applicant has lawfully accumulated, at an amateur station licensed by the Commission, a minimum total of either 2 hours operating time during the last 3 months or 5 hours operating time during the last 12 months of the license term. Such operating time, for the purpose of renewal, shall be counted as the total of all that time between the entries in the station log showing the beginning and end of transmissions as required in § 12.136 (a), both during single transmissions and during a sequence of transmissions. The application shall, in addition to the foregoing, include a statement that the applicant can send by hand key, i. e., straight key or any other type of hand operated key such as a semi-automatic or electronic key, and receive by ear, in plain language, messages in the International Morse Code at a speed of not less than that which is required in qualifying for an original license of the class being renewed.

(b) The Novice Class license will not be renewed.

(c) The applicant shall qualify for a new license by examination if the requirements of this section are not fulfilled.

(d) A renewal application which includes a modification (change of address or operator class) shall be submitted on FCC Form 610 and shall be accompanied by the applicant's amateur operator license, and also by his amateur station license if he holds one.

(e) Application for renewal of an amateur operator license without modification shall be submitted on FCC Form 405-A. Applications on Form 405-A should not be accompanied by the applicant's license. Unless otherwise directed by the Commission, each application for renewal of license shall be filed during the last 120 days of the license term or within a period of grace of one year after the expiration date of such license. During this one year period of grace an expired license is not valid. A renewed license issued upon the basis of an application filed during the grace period will be dated currently and will not be back-dated to the date of expiration of the license being renewed. In any case in which the licensee has, in accordance with the Commission's rules made timely and sufficient application for renewal of license, no license with reference to any activity of a continuing nature shall ex-

pire until such application shall have been finally determined.

(f) Renewal applications shall be governed by applicable rules in force on the date when application is filed.

§ 12.28 *Who may operate an amateur station.* An amateur radio station may be operated only by a person holding a valid amateur operator license. Such station may be operated by the licensee only in the manner and to the extent provided in his amateur operator license. Persons other than the station licensee, when operating such station, may operate it only to the extent and in the manner authorized to the licensee of the station and not exceeding the operating authority of such person's own amateur operator license. When an amateur station is used for telephony, the station licensee may permit any person to transmit by voice, provided during such transmission call signs are announced as prescribed by § 12.82 and a duly licensed amateur operator maintains actual control over the emissions, including turning the carrier on and off for each transmission and signing the station off after communication with each station has been completed.

§ 12.29 *License term.* Amateur operator licenses are normally valid for a period of 5 years from the date of issuance of a new or renewed license, except the Novice Class which is normally valid for a period of 1 year from the date of issuance. Modified and duplicate licenses shall bear the same date of expiration as the licenses for which they are modifications or duplicates.

§ 12.30 *Order of suspension.* No order of suspension of any operator's license shall take effect until 15 days' notice in writing thereof, stating the cause for the proposed suspension, has been given to the operator licensee who may make written application to the Commission at any time within said 15 days for a hearing upon such order. The notice to the operator licensee shall not be effective until actually received by him, and from that time he shall have 15 days in which to mail the said application. In the event that physical conditions prevent mailing of the application at the expiration of the 15-day period, the application shall then be mailed as soon as possible thereafter, accompanied by a satisfactory explanation of the delay. Upon receipt by the Commission of

such application for hearing, said order of suspension shall be held in abeyance until the conclusion of the hearing which shall be conducted under such rules as the Commission shall deem appropriate. Upon the conclusion of said hearing the Commission may affirm, modify, or revoke said order of suspension.

§ 12.31 *Proceedings.* Proceedings for the suspension of an operator's license shall in all cases be initiated by the entry of an order of suspension. Respondent will be given notice thereof together with notice of his right to be heard and to contest the proceeding. The effective date of the suspension will not be specified in the original order but will be fixed by subsequent motion of the Commission in accordance with the conditions specified above. Notice of the effective date of suspension will be given respondent who shall send his operator license to the office of the Commission in Washington, D. C., on or before the said effective date, or, if the effective date has passed at the time notice is received, the license shall be sent to the Commission forthwith.

EXAMINATIONS

§ 12.41 *When examination is required.* Examination is required for the issuance of a new amateur operator license, and for a change in class of operating privileges. Credit may be given, however, for certain elements of examination as provided in § 12.46.

§ 12.42 *Examination elements.* Examinations for amateur operator privileges will comprise one or more of the following examination elements:

Element 1 (A): *Beginner's code test.* Code test at five (5) words per minute.

Element 1 (B): *General code test.* Code test at thirteen (13) words per minute.

Element 1 (C): *Expert's code test.* Code test at twenty (20) words per minute.

Element 2: *Basic amateur practice.* Amateur radio operation and apparatus, including radiotelephone and radiotelegraph.

Element 3 (A): *Basic law.* Rules and regulations essential to beginners' operation, including sufficient elementary radio theory for the understanding of those rules.

Element 3 (B): *General regulations.* Provisions of treaties, statutes, and rules and regulations affecting all amateur stations and operators.

Element 4 (B): *Advanced amateur practice.* Advanced radio theory and operation as applicable to modern amateur techniques, including, but not limited to, radiotelephony, radiotelegraphy, and transmissions of energy

for measurements and observations applied to propagation, for the radio control of remote objects and for similar experimental purposes.

§ 12.43 *Examination requirements.* Applicants for original licenses will be required to pass examinations as follows:

(a) *Amateur extra class.* Elements 1 (C), 2, 3 (B) and 4 (B).

(b) *General class.* Elements 1 (B), (2) and 3 (B).

(c) *Conditional class.* Elements 1 (B), 2 and 3 (B).

(d) *Technician class.* Elements 1 (A), 2 and 3 (B).

(e) *Novice class.* Elements 1 (A) and 3 (A).

§ 12.44 *Manner of conducting examinations.* (a) The examinations for all classes of amateur operator licenses, except Conditional Class, will be conducted by an authorized Commission employee or representative at locations and at times specified by the Commission. The examinations for Conditional Class, as well as Technician and Novice Class licenses, may be conducted in accordance with the provisions of paragraph (c) of this section under one or more of the following conditions:

(1) If the applicant's actual residence and proposed amateur station location are more than 125 miles airline distance from the nearest location at which examinations are conducted by an authorized Commission employee or representative at intervals of not more than 3 months for amateur operator licenses; or

(2) If the applicant is shown by physician's certificate to be unable to appear for examination because of protracted disability; or

(3) If the applicant is shown by certificate of the commanding officer to be in the armed forces of the United States at an Army, Navy, Air Force, or Coast Guard station and, for that reason, to be unable to appear for examination at the time and place designated by the Commission.

(b) A holder of a conditional, technician, or novice class license obtained on the basis of an examination under the provisions of paragraph (c) of this section is not required to be re-examined when changing residence and station location to within a regular examination area, nor when a new examination loca-

tion is established within 125 miles of such licensee's residence and station location.

(c) Each examination for Conditional Class license, or for Technician, or Novice Class license under special conditions set forth in paragraph (a) of this section, shall be conducted and supervised by not more than two volunteer examiners, whom the Commission may designate or permit the applicant to select (not more than one examiner for the code test and not more than one examiner for the complete written examination). In the event the examiner for the code test is selected by the applicant, such examiner shall be the holder of an Extra Class, Advanced Class, or General Class of amateur operator license or shall have held, within the 5 years prior to the date of the examination, a commercial radiotelegraph operator license issued by the Commission or within that time shall have been employed in the service of the United States as the operator of a manually operated radiotelegraph station. The examiner for the written test shall be at least 21 years of age.

§ 12.45 *Additional examination for holders of Conditional Class operator licenses.* (a) The Commission may require a licensee holding a Conditional Class of operator license to appear for a General Class license examination at a location designated by the Commission. If the licensee fails to appear for the General Class examination when directed to do so, or fails to pass such examination, the Conditional Class operator license previously issued shall be subject to cancellation and, upon cancellation, a new license will not be issued for the Conditional Class privileges.

(b) Whenever the holder of a conditional class amateur operator license is required by the Commission to restrict the operation of his amateur station, in accordance with the provisions of §§ 12.152, 12.153 and 12.154, the necessity for those restrictions shall be considered sufficient grounds to require the holder of the Conditional Class license to appear for the General Class examination.

§ 12.46 *Examination credit.* (a) An applicant for a higher class of amateur operator license who holds a valid amateur operator license issued upon the basis of an examination by the Commission will be required to pass only those elements of the higher class examination

that were not included in the examination for the amateur license held when such application was filed. However, credit will not be allowed for licenses issued on the basis of an examination given under the provisions of § 12.44 (c).

(b) An applicant for any class of amateur operator license, except the Extra Class, will be given credit for the telegraph code element if within 5 years prior to the receipt of his application by the Commission he held a commercial radiotelegraph first or second class operator license issued by the Federal Communications Commission.

(c) An applicant for Amateur Extra Class operator license will be given credit for examination elements 1 (C) and 4 (B) if he so requests and submits evidence of having held a valid amateur radio station or operator license issued by any agency of the United States Government during or prior to April 1917, and qualifies for or currently holds a valid amateur operator license of the General or Advanced Class.

(d) No examination credit, except as herein provided, shall be allowed on the basis of holding or having held any amateur or commercial operator license.

§ 12.47 *Examination procedure.* All written portions of the examinations for amateur operator privileges shall be completed by the applicant in legible handwriting or hand printing, and diagrams shall be drawn by hand, by means of either pen and ink or pencil. Whenever the applicant's signature is required, his normal signature shall be used. Applicants unable to comply with these requirements, because of physical disability, may dictate their answers to the examination questions and the receiving code test and if unable to draw required diagrams, may dictate a detailed description essentially equivalent. If the examination or any part thereof is dictated, the examiner shall certify the nature of the applicant's disability and the name and address of the person(s) taking and transcribing the applicant's dictation.

§ 12.48 *Grading.* (a) Code tests for sending and receiving are graded separately. Failure to pass the required code test for either sending or receiving will terminate the examination.

(b) Seventy-four percent is the passing grade for written examinations. For the purpose of grading, all elements,

other than element 4 (B), required in qualifying for a particular license will be considered a single examination, and element 4 (B), will be considered as a separate examination.

§ 12.49 *Eligibility for re-examination.* An applicant who fails examination for amateur operator privileges may not take another examination for such privileges within 30 days, except that this limitation shall not apply to an examination for a General Class license following an examination for a Conditional Class license.

§ 12.50 *Code test procedure.* The code test required of an applicant for amateur radio operator license, in accordance with the provisions of §§ 12.42 and 12.43 shall determine the applicant's ability to transmit by hand key (straight key or if supplied by the applicant, any other type of hand operated key such as a semi-automatic or electronic key) and to receive by ear, in plain language, messages in the International Morse Code at not less than the prescribed speed, free from omission or other error for a continuous period of at least 1 minute during a test period of 5 minutes counting five characters to the word, each numeral or punctuation mark counting as two characters.

AMATEUR RADIO STATIONS

LICENSES

§ 12.60 *Limitations on antenna structures.* (a) No new antenna structure shall be erected for use by any station in the Amateur Radio Service, and no change shall be made in any existing antenna structure used or intended to be used by any station in the Amateur Radio Service so as to increase its overall height above ground level, without prior approval by the Commission, in any case when either (1) the antenna structure proposed to be erected will exceed an over-all height of 170 feet above ground level, except in the case where the antenna is mounted on top of an existing man-made structure and does not increase the over-all height of such man-made structure by more than 20 feet, or (2) the antenna structure proposed to be erected will exceed an over-all height of one foot above the established elevation of any landing area for each 200 feet of distance, or fraction thereof, from the nearest boundary of such landing area, except in the case

where the antenna structure does not exceed 20 feet above the ground or is mounted on top of an existing man-made structure or natural formation and does not increase the over-all height of such man-made structure or natural formation by more than 20 feet as a result of such mounting. Application for Commission approval, when such approval is required, shall be submitted on FCC Form No. 401-A, in triplicate.

(b) In cases where FCC Form No. 401-A is required to be filed, further details as to whether an aeronautical study and/or obstruction marking may be required, and specifications for obstruction marking when required, may be obtained from Part 17 of this chapter "Construction, Marking, and Lighting of Antenna Towers and Supporting Structures." Information regarding requirements as to inspection of obstruction marking, recording of information regarding such inspection, and maintenance of antenna structures is also contained in Part 17 of this chapter.

§ 12.61 *Eligibility for amateur station license.* A license for an amateur station will be issued in response to proper application therefor to a license amateur operator who has made a satisfactory showing of control of the transmitting station for which license is desired and of control of the specific premises upon which all of the station apparatus is to be located, at a designated fixed location. An amateur station license may be issued to an individual, not a licensed amateur operator (other than an alien or a representative of an alien or of a foreign government), who is in charge of a proposed amateur station located in approved public quarters and established for training purposes in connection with the armed forces of the United States, but not operated by the United States Government.

§ 12.62 *Eligibility of corporations or organizations to hold license.* An amateur station license will not be issued to a school, company, corporation, association, or other organization, nor for its use, except that in the case of a bona fide amateur radio organization or society, a station license may be issued to a licensed amateur operator, other than the holder of a Novice Class license, as trustee for such society.

§ 12.63 *Application for amateur station license.* (a) Each application for

an amateur station license shall comply with the Commission's rules and regulations and shall be made in writing, subscribed and verified on FCC Form No. 610 (application for amateur operator and/or station license). FCC Form No. 602 should be used where the applicant is in charge of a proposed amateur station located in approved public quarters and established for training purposes in connection with the armed forces of the United States, but not operated by the United States Government.

(b) One application and all papers incorporated therein and made a part thereof shall be submitted for each amateur station license. If the application is for station license only, it shall be filed directly with the Commission at its Washington 25, D. C. office. If the application also contains application for any class of amateur operator license, it shall be filed in accordance with the provisions of § 12.22.

§ 12.64 *Location of station.* (a) Every amateur station shall have a fixed transmitter location. Only one fixed transmitter location will be authorized and will be designated on the license for each amateur station, except that when remote control is authorized, the location of the remote control position as well as the location of the remotely controlled transmitter shall be considered as fixed transmitter locations and will be so designated on the station license. Unless remote control of the transmitting apparatus is authorized, such apparatus shall be operated only by a duly licensed amateur radio operator present at the location of such apparatus.

(b) Authority for operation of an amateur station with the licensed operator on duty at a specific remote control point in lieu of the remote transmitter location may be granted upon filing an application for a modified station license on FCC Form No. 610 or FCC Form No. 602, as appropriate, and provided that the following conditions are met:

(1) The remote control point as well as the remotely controlled transmitter, shall be located on premises controlled by the licensee.

(2) The remotely controlled transmitter shall be so installed and protected that it is inaccessible to other than duly authorized persons.

(3) In addition to the requirements of § 12.68 a photocopy of the amateur

station license shall be posted in a conspicuous place at the location of the remotely controlled transmitter.

(4) Means shall be provided at the control point to permit the continuous monitoring of the emissions of the remotely controlled transmitter, and it shall be continuously monitored when in operation.

(5) Means shall be provided at the remote control point immediately to suspend the radiation of the transmitter when there is any deviation from the terms of the station license or from the Rules Governing Amateur Radio Service.

(6) In the event that operation of an amateur transmitter from a remote control point by radio is desired, an application for a modified station license on FCC Form No. 610 or FCC Form No. 602, as appropriate, should be submitted with a letter requesting authority to operate in such a manner stating that the controlling transmitter at the remote location will operate within amateur frequency bands 420 megacycles or higher and that there will be full compliance with subparagraphs (1) through (5) of this paragraph. Supplemental statements and diagrams should accompany the application and show how radio remote control will be accomplished and what means will be employed to prevent unauthorized operation of the transmitter by signals other than those from the controlling unit. There should be included complete data on control channels, relays and functions of each, directional antenna design for the transmitter and receiver in the control circuit, and means employed for turning on and off the main transmitter from the remote control location.

(c) An amateur transmitter may be operated from a remote control point in lieu of the remote transmitter location without special authorization by the Commission when there is direct mechanical control or direct electrical control by wired connections of the transmitter from a point located in the same or closely adjoining building or structure provided there is full compliance with the conditions set forth in paragraph (b) (1) through (5) of this section.

§ 12.65 *License period.* The license for an amateur station is normally valid for a period of 5 years from the date of issuance of a new or renewed license ex-

cept that an amateur station license issued to the holder of a Novice Class amateur operator license is normally valid for a period of 1 year from the date of issuance. Any modified or duplicate license shall bear the same expiration date as the license for which it is a modification or duplicate.

§ 12.66 *Authorized apparatus.* An amateur station license authorizes the use under control of the licensee of all transmitting apparatus at the fixed location specified in the station license which is operated on any frequency, or frequencies allocated to the amateur service, and in addition authorizes the use, under control of the licensee, of portable and mobile transmitting apparatus operated at other locations.

§ 12.67 *Renewal of amateur station license.* (a) Application for renewal of station license without modification shall be submitted on FCC Form 405-A. Applications on Form 405-A should not be accompanied by the applicant's license. Unless otherwise directed by the Commission, each application for renewal of license shall be filed during the last 120 days of the license term or within a period of grace of one year after the expiration date of such license. During this one year period of grace an expired license is not valid. A renewed license issued upon the basis of an application filed during the grace period will be dated currently and will not be back-dated to the date of expiration of the license being renewed. This one year period of grace shall apply only to licenses expiring on or after January 1, 1951. In any case in which the licensee has, in accordance with the Commission's rules made timely and sufficient application for renewal of license, no license with reference to any activity of a continuing nature shall expire until such application shall have been finally determined.

(b) A renewal application which includes a modification (change of address) shall be submitted on FCC Form 610 and shall be accompanied by the applicant's amateur station license, and also by his amateur operator license if he holds one.

(c) Renewal applications shall be governed by applicable rules in force on the date when application is filed.

§ 12.68 *Availability of station license.* The original license of each amateur station or a photocopy thereof shall be

posted in a conspicuous place in the room occupied by the licensed operator while the station is being operated at a fixed location or shall be kept in his personal possession. When the station is operated at other than a fixed location, the original station license or a photocopy thereof shall be kept in the personal possession of the station licensee (or a licensed representative) who shall be present at the station while it is being operated as a portable or mobile station. The original station license shall be available for inspection by any authorized Government official at all times while the station is being operated and at other times upon request made by an authorized representative of the Commission, except when such license has been filed with application for modification or renewal thereof, or has been mutilated, lost, or destroyed, and application has been made for a duplicate license in accordance with § 12.26.

§ 12.69 *Revocation of station license and issuance of cease and desist orders.*

(a) Whenever it appears that a station license should be revoked for any of the reasons set forth in section 312 (a) of the Communications Act of 1934, as amended, or a cease and desist order should be issued for any of the reasons specified in section 312 (b) of the act, the Commission will issue an order directing the licensee to show cause why an order of revocation or a cease and desist order, as the case may be, should not be issued.

(b) Any order to show cause issued in accordance with paragraph (a) of this section will contain a statement of matters with respect to which the Commission is inquiring and will call upon the licensee to appear before the Commission at a time and place stated in the order, but in no event less than thirty (30) days after the receipt of such order, and give evidence upon the matter specified therein; except that where safety of life or property is involved, the Commission may provide in the order for a shorter period.

(c) In order to avail himself of the opportunity to appear before the Commission at the time and place stated in the show cause order to give evidence upon the matter specified therein, the licensee, in person or by his attorney, shall, within 30 days of the receipt of the order, or such shorter period as may be specified therein if the safety of life and property is involved, file with the Commission, in

triplicate, a written appearance stating that he will appear and present evidence on the matter specified in the order.

(d) The hearing on the matter specified in the order to show cause, and the practice and procedure in connection therewith, shall accord with the provisions of Subparts F and G of Part 1 of this chapter, except that in all such hearings the burden of proof shall be upon the Commission.

(e) If the licensee does not desire to appear before the Commission and give evidence upon the matter specified in the show cause order, he shall, within 30 days of the receipt of the order, or such shorter period as may be specified therein if the safety of life or property is involved, file with the Commission, in triplicate, a written waiver of hearing. Such waiver, which shall include the name of the licensee to whom the show cause order was addressed, the call letters of his station, if any, and the docket number of the proceeding, may be accompanied by a statement of reasons why the licensee believes that the order of revocation or a cease and desist order, as the case may be, should not be issued.

(f) If the licensee fails timely to respond to an order to show cause or fails to appear at a hearing, such failure will be deemed a waiver of hearing.

(g) If the licensee waives a hearing in accordance with the provisions of paragraph (e) of this section and fails to submit a statement therewith showing why he believes an order of revocation or a cease and desist order should not be issued, or if he is deemed to waive a hearing in accordance with the provisions of paragraph (f) of this section, the allegations specified in the order to show cause will be deemed to be admitted and a decision will be issued by the Commission invoking the sanction specified in the order to show cause. If a hearing is waived pursuant to paragraph (e) of this section but a written statement as to why an order of revocation or cease and desist order should not be issued is submitted, the Commission will, on the basis of the facts before it as supplemented by such written statement, issue a decision stating its reasons for invoking the sanction specified in the order to show cause or for dismissing the proceeding, as the case may be: *Provided*, That where the written statement contains factual allegations contrary to those upon which the

show cause order was based, the Commission may call upon the submitting party to furnish additional information under oath, or, if necessary, designate the proceeding for oral hearing. The decisions of the Commission referred to in this paragraph shall have the same effect as an initial decision, and the procedure to be followed thereafter shall be the same as in the case of an initial decision issued in the course of the regular hearing procedure (see §§ 1.853–1.857 of this chapter).

(h) Any order of revocation or cease and desist order issued pursuant to this section shall include a statement of the findings and the grounds and reasons therefor and specify the effective date of the order, and shall be served on said licensee.

§ 12.70 *Modification of station license.*

(a) Whenever the Commission shall determine that public interest, convenience, and necessity would be served, or any treaty ratified by the United States will be more fully complied with, by the modification of any radio station license either for a limited time, or for the duration of the term thereof, it shall issue an order for such licensee to show cause why such license should not be modified.

(b) Such order to show cause shall contain a statement of the grounds and reasons for such proposed modification, and shall specify wherein the said license is required to be modified. It shall require the licensee against whom it is directed to appear at a place and time therein named, in no event to be less than 30 days from the date of receipt of the order to show cause why the proposed modification should not be made and the order of modification issued.

(c) If the licensee against whom the order to show cause is directed does not appear at the time and place provided in said order, a final order of modification shall issue forthwith.

CALL SIGNS

§ 12.81 *Assignment of call signs.* (a) The call signs of amateur stations will be assigned systematically by the Commission with the following exceptions:

(1) A specific unassigned call sign may be reassigned to the most recent holder thereof;

(2) A specific unassigned call sign may be assigned to a previous holder if not under license during the past 5 years;

(3) A specific unassigned call sign may be assigned to an amateur organization in memoriam to a deceased member and former holder thereof;

(4) A specific call sign may be temporarily assigned to a station connected with an event, or events, of general public interest;

(5) An unassigned "two-letter call sign" (a call sign having two letters following the numeral) may be assigned to a previous holder of a two-letter call sign the prefix of which consisted of not more than a single letter.

(b) An amateur call sign will consist of a sequence of one or two letters, a numeral designating the call sign area, and two or three letters. The call sign areas are as follows:

No.

1. Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.
2. New York, New Jersey.
3. Pennsylvania, Delaware, Maryland, District of Columbia.
4. Virginia, North and South Carolina, Georgia, Florida, Alabama, Tennessee, Kentucky, Puerto Rico and Virgin Islands.
5. Mississippi, Louisiana, Arkansas, Oklahoma, Texas, New Mexico.
6. California, Hawaii and Pacific possessions except those included in area 7.
7. Oregon, Washington, Idaho, Montana, Wyoming, Arizona, Nevada, Utah, Alaska and adjacent islands.
8. Michigan, Ohio, West Virginia.
9. Wisconsin, Illinois, Indiana.
0. Colorado, Nebraska, North and South Dakota, Kansas, Minnesota, Iowa, Missouri.

§ 12.82 *Transmission of call signs.* (a)

(1) The operator of an amateur station shall transmit the call sign of the station or stations (or may transmit the generally accepted identification of the network) being called or communicated with, or shall identify appropriately any other purpose of a transmission, followed by the authorized call sign of the station transmitting:

(i) At the beginning and end of each single transmission or;

(ii) At the beginning and end of a series of transmissions between stations having established communication, each transmission of which is of less than three minutes duration (the identification at the end of such a series may be omitted when the duration of the entire series is less than three minutes), and;

(iii) At least once every ten minutes or as soon thereafter as possible during

a series of transmissions between stations having established communication, and;

(iv) At least once every ten minutes during any single transmission of more than ten minutes duration.

(2) The required identification shall be transmitted on the frequency or frequencies being employed at the time and, in accordance with the type of emission authorized thereon, shall be by either telegraphy using the International Morse Code, or telephony. In addition to the foregoing, when a method of communication other than telephony or telegraphy using the International Morse Code is being used or attempted, the prescribed identification shall also be transmitted by that method.

(b) In addition to complying with the requirements of paragraph (a) of this section, an operator of an amateur station operated as a portable or mobile station using radiotelegraphy shall transmit immediately after the call sign of such station, the fraction-bar character (DN) followed by the number of the amateur call sign area in which the portable or mobile amateur station is then being operated, as for example:

Example 1. Portable or mobile amateur station operating in the third amateur call sign area calls a fixed amateur station: W1ABC W1ABC W1ABC DE W2DEF DN 3 W2DEF DN 3 W2DEF DN 3 AR.

Example 2. Fixed amateur station answers the portable or mobile amateur station: W2DEF W2DEF W2DEF DE W1ABC K.

Example 3. Portable or mobile amateur station calls a portable or mobile amateur station: W3GHI W3GHI W3GHI DE W4JKL DN 4 W4JKL DN 4 W4JKL DN 4 AR.

When telephony is used, the call sign of the station shall be preceded by the words "this is" or the word "from" instead of the letters "de," followed by an announcement of the geographical location in which the portable or mobile station is being operated.

Example 4. Portable or mobile amateur radiotelephone station operating in the third call area calls a fixed amateur station: W1ABC W1ABC W1ABC "this is" or the word "from" W2DEF W2DEF W2DEF operating portable (or mobile) 3 miles north of Bethesda, Md., over.

(c) When telephony is used, the transmission of call signs prescribed by paragraphs (a) and (b) of this section may be made by the person transmitting

by voice in lieu of a duly licensed operator provided the licensed operator maintains the control required by § 12.28.

(d) When using telephony, phonetic aids to identify the call sign of the station may be employed.

(e) In addition to complying with the requirements of paragraph (a) of this section, an operator of an amateur station operated as a mobile station aboard a vessel on the high seas, or aboard an aircraft en route on an international flight, shall, when the vessel or aircraft is outside the 10 call sign areas prescribed by the Commission in § 12.81 (b), comply with the following calling procedure:

(1) Mobile operations aboard a vessel.

(i) When using telegraphy the amateur operator shall transmit immediately after the call sign of the station the fraction bar $\overline{\text{DN}}$ followed by the designator MM to indicate that the station is being operated as a mobile station aboard a vessel. In addition, the name of the vessel and its approximate geographical location shall be transmitted at the end of each transmission immediately prior to signing off. If the vessel does not have a name, the number of the vessel shall be transmitted in lieu of the name of the vessel.

(ii) When using telephony the call sign of the station shall be preceded by the words "this is", or the word "from" followed by the words "maritime mobile" to indicate that the station is being operated as a mobile station aboard a vessel. In addition the name of the vessel, and its approximate geographical location shall be transmitted at the end of each transmission immediately prior to signing off. If the vessel does not have a name, the number of the vessel shall be transmitted in lieu of the name of the vessel.

(2) Mobile operations aboard aircraft.

(i) When using telegraphy the amateur operator shall transmit immediately after the call sign of the station the fraction bar $\overline{\text{DN}}$ followed by the designator AM to indicate that the station is being operated as a mobile station aboard an aircraft. In addition, the number of the aircraft and its approximate geographical location shall be transmitted at the end of each transmission immediately prior to signing off.

(ii) When using telephony the call sign of the station shall be preceded by the words "this is", or the word "from" followed by the words "aeronautical mobile", to indicate that the station is being operated as a mobile station aboard an aircraft. In addition, the number of the aircraft and its approximate geographical location shall be transmitted at the end of each transmission immediately prior to signing off.

PORTABLE AND MOBILE STATIONS

§ 12.91 *Requirements for portable and mobile operation.* (a) Within the continental limits of the United States, its territories, or possessions, an amateur station may be operated as either a portable or a mobile station on any frequency authorized and available for the amateur radio service. Whenever portable operation is, or is likely to be, for an over-all period in excess of 48 hours away from the fixed transmitter location designated in the station license, the licensee shall give prior written notice to the Engineer in Charge of the radio inspection district in which such portable operation is intended. This notice is required even though the station is, or is likely to be, operated during any part of this over-all period at the fixed transmitter location. Whenever mobile operation is, or is likely to be, for a period in excess of 48 hours without return to the fixed transmitter location designated in the station license, the licensee shall give prior written notice to the Engineer in Charge of the radio inspection district in which such mobile operation is intended. The notice required for either portable or mobile operation shall state the station call sign, the name of the licensee, the date or dates of proposed operation and the contemplated portable station locations, or mobile station itinerary, as specifically as possible. Additional advanced written notice shall also be given, in accordance with the foregoing, whenever such operation away from the fixed station location designated in the station license exceeds one month, and for each additional month of such operation.

(b) Outside the continental limits of the United States, its territories or possessions, an amateur station may be operated as portable or mobile only in the amateur band 28.0 to 29.7 Mc except that within areas under the jurisdiction of a foreign government, operation is

controlled by the laws of that government and the terms of any applicable treaty. (See Appendix 4 for such treaties or agreements as are in force and the pertinent terms thereof.) Whenever such portable or mobile operation is, or is likely to be, for a period in excess of 48 hours away from the continental limits of the United States, its territories, or possessions, the licensee shall give prior written notice to the Engineer in Charge of the radio inspection district in which the fixed transmitter site designated in the station license is located. Only one such notice shall be required during any continued absence from the continental limits of the United States, its territories, or possessions.

§ 12.93 *Special provisions for non-portable stations.* The specific provisions of these rules relative to portable stations are not applicable to a nonportable station except that—

(a) An amateur station that has been moved from one permanent location to another permanent location may be operated at the latter location, in accordance with the provisions governing portable stations (including notice to the Engineer in Charge of the district in which the station is located) for a period not exceeding four consecutive months, but in no event beyond the expiration date of the license, provided a formal application for modification of license to change the permanent location has been filed with the Commission.

(b) The licensee of an amateur station who changes residence temporarily, but retains a permanent residence associated with the fixed station location designated in the station license, and moves his amateur station to a temporary location associated with his temporary residence, or the licensee-trustee for an amateur radio society which changes the normal location of its amateur station to a different and temporary location, may use the station at such temporary location under the following conditions:

(1) Advance notice in writing shall be given by the amateur station licensee or licensee-trustee to the Commission in Washington, D. C., and, for each month of such operation, to the Engineer in Charge of the radio inspection district in which the station is to be temporarily operated.

(2) Similar notice shall be given for each change in such temporary location,

for the return of the station to the former permanent location, or for the establishment of a new permanent location: *Provided*, That additional monthly notices to the Engineer in Charge shall not be required when such operation takes place at the fixed station location designated in the station license held by the licensee.

(3) The notice of operation at a temporary location, as required under the preceding provisions of this paragraph, shall clearly identify the station call sign and licensee or licensee-trustee, shall indicate both the permanent and the temporary station locations, shall indicate the address at which the licensee or licensee-trustee can be readily reached during such temporary operation, and shall show the reason why operation at that location is considered temporary rather than a change of permanent location.

(c) When the station is operated under the provisions of this section the calling procedure specified in § 12.82 shall be used, including transmissions of the fractional bar character when telegraphy is used followed by the number of the amateur call sign area in which the station is being operated. When telephony is used, an announcement shall be made of the geographical location in which the station is being operated.

§ 12.94 *Special provisions for mobile stations aboard ships or aircraft.* In addition to complying with all other applicable rules, an amateur mobile station operated on board a ship or aircraft must comply with all of the following special conditions: (a) The installation and operation of the amateur mobile station shall be approved by the master of the ship or captain of the aircraft; (b) The amateur mobile station shall be separate from and independent of all other radio equipment, if any, installed on board the same ship or aircraft; (c) The electrical installation of the amateur mobile station shall be in accord with the rules applicable to ships or aircraft as promulgated by the appropriate government agency; (d) The operation of the amateur mobile station shall not interfere with the efficient operation of any other radio equipment installed on board the same ship or aircraft; and (e) The amateur mobile station and its associated equipment, either in itself or in

its method of operation, shall not constitute a hazard to the safety of life or property.

USE OF AMATEUR STATIONS

§ 12.101 *Points of communications.* An amateur station may be used to communicate only with other amateur stations, except that in emergencies or for test purposes it may also be used temporarily for communication with other classes of stations licensed by the Commission, and with United States Government stations. Amateur stations may also be used to communicate with any radio station other than amateur which is authorized by the Commission to communicate with amateur stations. Amateur stations may be used also for transmitting signals, or communications, or energy, to receiving apparatus for the measurement of emissions, temporary observation of transmission phenomena, radio control of remote objects, and for similar experimental purposes and for the purposes set forth in § 12.106.

§ 12.102 *No remuneration for use of station.* An amateur station shall not be used to transmit or receive messages for hire, nor for communication for material compensation, direct or indirect, paid or promised.

§ 12.103 *Broadcasting prohibited.* Subject to the provisions of § 12.106, an amateur station shall not be used to engage in any form of broadcasting, that is, the dissemination of radio communications intended to be received by the public directly or by the intermediary of relay stations, nor for the retransmission by automatic means of programs or signals emanating from any class of station other than amateur. The foregoing provision shall not be construed to prohibit amateur operators from giving their consent to the rebroadcast by broadcast stations of the transmissions of their amateur stations, provided, that the transmissions of the amateur stations shall not contain any direct or indirect reference to the rebroadcast.

§ 12.104 *Radio telephone tests.* The transmission of music by an amateur station is forbidden. However, single audio-frequency tones may be transmitted for test purposes of short duration for the development and perfection of amateur radio telephone equipment.

§ 12.105 *Codes and ciphers prohibited.* The transmission by radio of messages

in codes or ciphers in domestic and international communications to or between amateur stations is prohibited. All communications regardless of type of emission employed shall be in plain language except that generally recognized abbreviations established by regulation or custom and usage are permissible as are any other abbreviations or signals where the intent is not to obscure the meaning but only to facilitate communications.

§ 12.106 *One-way communications.* In addition to the experimental one-way transmissions permitted by § 12.101, the following kinds of one-way communications, addressed to amateur stations, are authorized and will not be construed as broadcasting: (a) Emergency communications, including bona-fide emergency drill practice transmissions; (b) Information bulletins consisting solely of subject matter having direct interest to the amateur radio service as such; (c) Round-table discussions or net-type operations where more than two amateur stations are in communication, each station taking a turn at transmitting to other station(s) of the group; and (d) Code practice transmissions intended for persons learning or improving proficiency in the International Morse Code.

§ 12.107 *Special provisions regarding radio teleprinter transmissions.* The following special conditions shall be observed during the transmission of radio teleprinter signals on authorized frequencies by amateur stations:

(a) A single channel five-unit (start-stop) teleprinter code shall be used, which shall correspond to the International Telegraphic Alphabet No. 2 with respect to all letters and numerals (including the slant sign or fraction bar) but special signals may be employed for the remote control of receiving printers, or for other purposes, in "figures" positions not utilized for numerals. In general, this code shall conform as nearly as possible to the teleprinter code or codes in common commercial usage in the United States.

(b) The nominal transmitting speed of the radio teleprinter signal keying equipment shall be adjusted as nearly as possible to the standard speed of 60 words per minute and, in any event, within the range 55 to 65 words per minute.

(c) When frequency-shift keying (type F-1 emission) is utilized, the deviation

in frequency from the mark signal to the space signal, or from the space signal to the mark signal, shall be adjusted as nearly as possible to 850 cycles and, in any event, within the range 800 to 900 cycles per second.

(d) When audio-frequency-shift keying (type A-2 or type F-2 emission) is utilized, the highest fundamental modulating audio frequency shall not exceed 3000 cycles per second, and the difference between the modulating audio frequency for the mark signal and that for the space signal shall be adjusted as nearly as possible to 850 cycles and, in any event, within the range 800 to 900 cycles per second.

ALLOCATION OF FREQUENCIES

§ 12.111 *Frequencies and types of emission for use of amateur stations.* Subject to the limitations and restrictions set forth in this section and in § 12.114, the following frequency bands and types of emissions are allocated and available for amateur station operation:

(a) 1800 to 2000 kc. Use of this band is on a shared basis with the Loran sys-

tem of radionavigation. The amateur service may use, in any area, whichever bands, 1800-1825, 1875-1900, 1900-1925 or 1975-2000 kc, are not required for Loran in that area, in accordance with the following conditions:

(1) The use of these frequencies by the amateur service shall not be a bar to the expansion of the radionavigation (Loran) service.

(2) The use of these frequencies by stations in the amateur service shall not cause harmful interference to the Loran system of radionavigation. If an amateur station causes such interference, the station licensee shall, as directed by the Commission, immediately cease operation on the frequencies involved.

(3) Only type A1 or A3 emission shall be employed.

(4) Amateur operation shall be limited to the following areas, to the indicated frequency bands within each such area, and to the indicated maximum plate power input to the tube or tubes supplying energy to the antenna during day and night hours, respectively, on such frequencies:

Area	Authorized bands, kc	DC plate input power in watts	
		Day	Night
Minnesota, Iowa, Missouri, Arkansas, Louisiana and States to the east of these States, including District of Columbia.	1800-1825, 1875-1900	500	200
North Dakota, South Dakota, Nebraska, Colorado, New Mexico, and States to the west of these States except the State of Washington.	1900-1925, 1975-2000	500	200
State of Washington.....	1900-1925, 1975-2000	200	50
Texas, Oklahoma, and Kansas.....	1800-1825, 1875-1900	200	75
Hawaiian Islands.....	1900-1925, 1975-2000	500	200
Puerto Rico and Virgin Islands.....	1800-1825, 1875-1900	500	200
Alaska, Guam, and other Territories and possessions of the United States not listed above.	None	No operation.	No operation.

(5) The provisions of this subparagraph shall be considered as temporary in the sense that they shall remain subject to cancellation or to revision, in whole or in part, by order of the Commission without hearing whenever the Commission shall deem such cancellation or revision to be necessary or desirable in the light of the priority within this band of the Loran system of radionavigation.

(b) 3500 to 4000 kc, using type A-1 emission and, on frequencies 3500 to 3800 kc, using type F-1 emission and, on frequencies 3800 to 4000 kc, using type A3 emission and narrow band frequency or phase modulation for radiotelephony;

to those stations located within the continental limits of the United States, the Territories of Alaska and Hawaii, Puerto Rico, the Virgin Islands, and all United States possessions lying west of the Territory of Hawaii to 170° west longitude.

(c) 7000 to 7300 kc, using type A-1 emission and, on frequencies 7000 to 7200 kc, using type F-1 emission and, on frequencies 7200 to 7300 kc, using type A-3 emission or narrow band frequency or phase modulation for radiotelephony.

(d) 14,000 to 14,350 kc, using type A-1 emission, 14,000 to 14,200 kc and 14,300 to 14,350 kc using type F-1 emission and on frequencies 14,200 to 14,300 kc, type

A-3 emission or narrow band frequency or phase modulation for radiotelephony.

(e) 21.00 to 21.45 Mc, using type A-1 emission; 21.00 to 21.25 Mc, using type F-1 emission; 21.25 to 21.45 Mc, using type A-3 emission and narrow band frequency or phase modulation for telephony.

(f) 26.960 to 27.230 Mc using A0, A1, A2, A3, and A4 emission and also special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques), subject to such interference as may result from the emissions of industrial, scientific and medical devices within 160 kc of the frequency 27.120 Mc.

(g) 28.0 to 29.7 Mc, using type A1 emission and, on frequencies 28.5 to 29.7 Mc using type A3 emission and narrow band frequency or phase modulation for radiotelephony and, on frequencies 29.0 to 29.7, using special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(h) 50.0 to 54.0 Mc, using types A1, A2, A3, and A4 emission and narrow band frequency or phase modulation for radiotelephony and on frequencies 52.5 to 54.0 Mc, special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(i) 144 to 148 Mc, using types A0, A1, A2, A3, and A4 emission and special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(j) 220 to 225 Mc^{*} using types A0, A1, A2, A3 and A4 emission and special

emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulated techniques).

(k) 420 to 450 Mc, using types A0, A1, A2, A3, A4, and A5 emissions and special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques). Peak antenna power shall not exceed 50 watts in order to minimize interference to aircraft altimeters temporarily allocated to this band.

(l) 1215 to 1300 Mc, using types A0, A1, A2, A3, A4, and A5 emission and special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(m) 2300 to 2450 Mc, 3300 to 3500 Mc, 5650 to 5925 Mc, 10,000 to 10,500 Mc, 21,000 to 22,000 Mc, and any frequency or frequencies above 30,000 Mc, using on these frequencies types A0, A1, A2, A3, A4, A5 emission and special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques), and pulse emission. Operations in the frequency bands 2300 to 2450 Mc and 5650 to 5925 Mc are subject to such interference between 2400 and 2450 Mc and between 5775 and 5925 Mc, respectively, as may result from emissions of industrial, scientific and medical devices on the frequencies 2450 and 5850 Mc, respectively.

§ 12.113 *Individual frequency not specified.* Transmissions by an amateur station may be on any frequency within any authorized amateur band. Sideband frequencies resulting from keying or

operate in an organized civil defense network during all periods when civil defense emergencies exist and, in addition, special arrangements for civil defense drills between the hours and within the area set forth above may be made upon mutual agreement between the Federal Communications Commission Engineer in Charge at Dallas, Texas, and the Area Frequency Coordinator at White Sands, New Mexico, if it appears necessary to conduct such drills. Such arrangements shall specify dates and times, and will depend upon the degree of use of the frequency band at White Sands at any particular time.

^{*}In those portions of the States of Texas and New Mexico in the area bounded on the south by parallel 31°53' N., on the east by longitude 105°40' W., on the north by parallel 33°24' N., and on the west by longitude 106°40' W., the frequency band 220-225 Mc. is not available for use by amateur stations engaged in normal amateur operation between the hours of 0500 and 1800 local time Monday through Friday inclusive of each week. However, the entire frequency band 220-225 Mc. shall be applicable in all areas to those amateur stations authorized to

modulating a carrier wave shall be confined within the authorized amateur band.

§ 12.114 *Types of emission.* (a) Type A ϕ emission, where not specifically designated in the bands listed in § 12.111, may be used for short periods of time when required for authorized remote control purposes or for experimental purposes. However, these limitations do not apply where type A ϕ emission is specifically designated.

(b) [Reserved]

(c) The use of narrow band frequency or phase modulation is subject to the conditions that the band-width of the modulated carrier shall not exceed the band-width occupied by an amplitude-modulated carrier of the same audio characteristics, and that the purity and stability of such emissions shall be maintained in accordance with the requirements of § 12.133.

EQUIPMENT AND OPERATION

§ 12.131 *Maximum authorized power.* Except on frequencies within the band 420 to 450 megacycles (where peak antenna power shall not exceed 50 watts), each amateur transmitter may be operated with a power input not exceeding 1 kilowatt to the plate circuit of the final amplifier stage of an amplifier-oscillator transmitter or to the plate circuit of an oscillator transmitter. An amateur transmitter operating with a power input exceeding 900 watts to the plate circuit shall provide means for accurately measuring the plate power input to the vacuum tube or tubes supplying power to the antenna.

§ 12.132 *Power supply to transmitter.* The license of an amateur station using frequencies below 144 megacycles shall use adequately filtered direct-current plate power supply for the transmitting equipment to minimize modulation from this source.

§ 12.133 *Purity and stability of emissions.* Spurious radiation from an amateur station being operated with a carrier frequency below 144 megacycles shall be reduced or eliminated in accordance with good engineering practice. This spurious radiation shall not be of sufficient intensity to cause interference in receiving equipment of good engineering design including adequate selectivity characteristics, which is tuned to a frequency or frequencies outside the fre-

quency band of emission normally required for the type of emission being employed by the amateur station. In the case of A-3 emission, the amateur transmitter shall not be modulated to the extent that interfering spurious radiation occurs, and in no case shall the emitted carrier wave be amplitude-modulated in excess of 100 percent. Means shall be employed to insure that the transmitter is not modulated in excess of its modulation capability for proper technical operation. For the purposes of this section a spurious radiation is any radiation from a transmitter which is outside the frequency band of emission normal for the type of transmission employed, including any component whose frequency is an integral multiple or submultiple of the carrier frequency (harmonics and subharmonics), spurious modulation products, key clicks, and other transient effects, and parasitic oscillations. When using amplitude modulation on frequencies below 144 megacycles, simultaneous frequency modulation is not permitted and when using frequency modulation on frequencies below 144 megacycles simultaneous amplitude modulation is not permitted. The frequency of the emitted carrier wave shall be as constant as the state of the art permits.

§ 12.134 *Modulation of carrier wave.* Except for brief tests or adjustments and except for operation in the band 26.960 to 27.230 megacycles, an amateur radiotelephone station shall not emit a carrier wave on frequencies below 144 megacycles unless modulated for the purpose of communication.

§ 12.135 *Frequency measurement and regular check.* The licensee of an amateur station shall provide for measurement of the emitted carrier frequency or frequencies and shall establish procedure for making such measurement regularly. The measurement of the emitted carrier frequency or frequencies shall be made by means independent of the means used to control the radio frequency or frequencies generated by the transmitting apparatus and shall be of sufficient accuracy to assure operation within the amateur frequency band used.

§ 12.136 *Logs.* Each licensee of an amateur station shall keep an accurate log of station operation, which shall include the following:

(a) The date and time of each transmission. (The date need only be entered once for each day's operation. The

expression "time of each transmission" means the time of making a call and need not be repeated during the sequence of communication which immediately follows; however, an entry shall be made in the log when signing off so as to show the period during which communication was carried on.)

(b) The signature of each licensed operator who manipulates the key of a radiotelegraph transmitter or the signature of each licensed operator who operates a transmitter of any other type and the name of any person not holding an amateur operator license who transmits by voice over a radiotelephone transmitter. The signature of the operator need only be entered once in the log, in those cases when all transmissions are made by or under the supervision of the signatory operator, provided a statement to that effect also is entered. The signature of any other operator who operated the station shall be entered in the proper space for that operator's transmission.

(c) Call sign of the station called. (This entry need not be repeated for calls made to the same station during any sequence of communication, provided the time of signing off is given.)

(d) The input power to the oscillator, or to the final amplifier stage where an oscillator-amplifier transmitter is employed. (This need be entered only once, provided the input power is not changed.)

(e) The frequency band used. (This information need be entered only once in the log for all transmissions until there is a change in frequency to another amateur band.)

(f) The type of emission used. (This need be entered only once until there is a change in the type of emission.)

(g) The location of the station (or the approximate geographical location of a mobile station) at the time of each transmission. (This need be entered only once provided the location of the station is not changed. However, suitable entry shall be made in the log upon changing the location. Where operating at other than a fixed location, the type and identity of the vehicle or other mobile unit in which the station is operated shall be shown.)

(h) The message traffic handled. (If record communications are handled in regular message form, a copy of each message sent and received shall be en-

tered in the log or retained on file at the station for at least 1 year.)

§ 12.137 *Retention of logs.* The log shall be preserved for a period of at least 1 year following the last date of entry. The copies of record communications and station log required by § 12.136 shall be available for inspection by authorized representatives of the Commission.

SPECIAL CONDITIONS

§ 12.151 *Additional conditions to be observed by licensee.* In all respects not specifically covered by these regulations each amateur station shall be operated in accordance with good engineering and good amateur practice.

§ 12.152 *Restricted operation.* (a) If the operation of an amateur station causes general interference to the reception of transmissions from stations operating in the domestic broadcast service when receivers of good engineering design including adequate selectivity characteristics are used to receive such transmissions and this fact is made known to the amateur station licensee, the amateur station shall not be operated during the hours from 8 p. m. to 10:30 p. m., local time, and on Sunday for the additional period from 10:30 a. m. until 1 p. m., local time, upon the frequency or frequencies used when the interference is created.

(b) In general, such steps as may be necessary to minimize interference to stations operating in other services may be required after investigation by the Commission.

§ 12.153 *Second notice of same violation.* In every case where an amateur station licensee is cited within a period of 12 consecutive months for the second violation of the provisions of §§ 12.111, 12.113, 12.114, 12.132, or 12.133, the station licensee, if directed to do so by the Commission, shall not operate the station and shall not permit it to be operated from 6 p. m. to 10:30 p. m., local time, until written notice has been received authorizing the resumption of full-time operation. This notice will not be issued until the licensee has reported on the results of tests which he has conducted with at least two other amateur stations at hours other than 6 p. m. to 10:30 p. m., local time. Such tests are to be made for the specific purposes of aiding the licensee in determining whether the emissions of the station are in accordance with the Commission's

rules. The licensee shall report to the Commission the observations made by the cooperating amateur licensees in relation to the reported violations. This report shall include a statement as to the corrective measures taken to insure compliance with the rules.

§ 12.154 *Third notice of same violation.* In every case where an amateur station licensee is cited within a period of 12 consecutive months for the third violation of §§ 12.111, 12.113, 12.114, 12.132 or 12.133, the station licensee if directed by the Commission, shall not operate the station and shall not permit it to be operated from 8 a. m. to 12 midnight, local time, except for the purposes of transmitting a prearranged test to be observed by a monitoring station of the Commission to be designated in each particular case. The station shall not be permitted to resume operation during these hours until the licensee is authorized by the Commission, following the test, to resume full-time operation. The results of the test and the licensee's record shall be considered in determining the advisability of suspending the operator license or revoking the station license, or both.

§ 12.155 *Answers to notices of violations.* Any licensee receiving official notice of a violation of the terms of the Communications Act of 1934, as amended, any legislative act, Executive order, treaty to which the United States is a party, or the rules and regulations of the Federal Communications Commission, shall, within 3 days from such receipt, send a written answer direct to the office of the Commission originating the official notice: *Provided, however,* That if an answer cannot be sent or an acknowledgment made within such 3-day period by reason of illness or other unavoidable circumstances, acknowledgment and answer shall be made at the earliest practicable date with a satisfactory explanation of the delay. The answer to each notice shall be complete in itself and shall not be abbreviated by reference to other communications or answers to other notices. If the notice relates to some violation that may be due to the physical or electrical characteristics of transmitting apparatus, the answer shall state fully what steps, if any, are taken to prevent future violations, and if any new apparatus is to be installed, the date such apparatus was ordered, the name of the manufacturer,

and promised date of delivery. If the notice of violation relates to some lack of attention or improper operation of the transmitter, the name of the operator in charge shall be given.

§ 12.156 *Operation in emergencies.* In the event of an emergency disrupting normally available communication facilities in any widespread area or areas, the Commission, in its discretion, may declare that a general state of communications emergency exists, designate the area or areas concerned, and specify the amateur frequency bands, or segments of such bands, for use only by amateurs participating in emergency communication within or with such affected area or areas. Amateurs desiring to request the declaration of such a state of emergency should communicate with the Commission's Regional Manager of the area concerned. Whenever such declaration has been made, operation of and with amateur stations in the area concerned shall be only in accordance with the requirements hereinafter set forth, but such requirements shall in no wise affect other normal amateur communication in the affected area when conducted on frequencies not designated for emergency operation.

(a) All transmissions within all designated amateur emergency communication bands other than communications relating directly to relief work, emergency service, or the establishment and maintenance of efficient amateur radio networks for the handling of such communications, shall be suspended. Incidental calling, answering, testing or working (including casual conversation, remarks or messages) not pertinent to constructive handling of the emergency situation shall be prohibited within these bands.

(b) The Commission may designate certain amateur stations to assist in the promulgation of information relating to the declaration of a general state of communications emergency, to monitor the designated amateur emergency communications bands, and to warn non-complying stations observed, to be operating in those bands. Such station, when so designated, may transmit for that purpose on any frequency or frequencies authorized to be used by that station, provided such transmissions do not interfere with essential emergency communications in progress; however, such transmissions shall preferably be

made on authorized frequencies immediately adjacent to those segments of the amateur bands being cleared for the emergency. Individual transmissions for the purpose of advising other stations of the existence of the communications emergency shall refer to this section by number (§ 12.156) and shall specify, briefly and concisely, the date of the Commission's declaration, the area and nature of the emergency, and the amateur frequency bands or segments of such bands which constitute the amateur emergency communications bands at the time. The designated stations shall not enter into discussions with other stations beyond furnishing essential facts relative to the emergency, or acting as advisors to stations desiring to assist in the emergency, and the operators of such designated stations shall report fully to the Commission the identity of any stations failing to comply, after notice, with any of the pertinent provisions of this section.

(c) The special conditions imposed under the provisions of this section shall cease to apply only after the Commission, or its authorized representative, shall have declared such general state of communications emergency to be terminated; however, nothing in this paragraph shall be deemed to prevent the Commission from modifying the terms of its declaration from time to time as may be necessary during the period of a communications emergency, or from removing those conditions with respect to any amateur frequency band or segment of such band which no longer appears essential to the conduct of the emergency communications.

§ 12.157 *Obscenity, indecency, profanity.* No licensed radio operator or other person shall transmit communications containing obscene, indecent, or profane words, language, or meaning.

§ 12.158 *False signals.* No licensed radio operator shall transmit false or deceptive signals or communications by radio, or any call letter or signal which has not been assigned by proper authority to the radio station he is operating.

§ 12.159 *Unidentified communications.* No licensed radio operator shall transmit unidentified radio communications or signals.

§ 12.160 *Interference.* No licensed radio operator shall willfully or maliciously interfere with or cause interfer-

ence to any radio communication or signal.

§ 12.161 *Damage to apparatus.* No licensed radio operator shall willfully damage, or cause or permit to be damaged, any radio apparatus or installation in any licensed radio station.

§ 12.162 *Fraudulent licenses.* No licensed radio operator or other person shall obtain or attempt to obtain, or assist another to obtain or attempt to obtain, an operator license by fraudulent means.

SUBPART B—RADIO AMATEUR CIVIL EMERGENCY SERVICE

GENERAL

§ 12.200 *Temporary nature of this service.* (a) The Radio Amateur Civil Emergency Service provides a temporary phase of amateur operation for Civil Defense communications purposes only, and the rules are limited in their force and effect to the period of the present national emergency, including any emergency which may necessitate invoking of the President's War Emergency Powers under the provisions of section 606 of the Communications Act of 1934, as amended.

(b) Pursuant to the provisions of section 4 (j) of the Communications Act of 1934, as amended, records relating to the Radio Amateur Civil Emergency Service shall not be open to general public inspection.

§ 12.201 *Definitions.* For the purposes of this subpart, the following definitions are applicable:

(a) *Radio Amateur Civil Emergency Service.* A temporary radio-communication service carried on by licensed amateur radio stations while operating on specifically designated segments of the regularly allocated amateur frequency bands under the direction of authorized local, regional, or federal civil defense officials pursuant to an approved civil defense communications plan.

(b) *Radio Amateur Civil Emergency Station.* An amateur radio station which is authorized to operate in the Radio Amateur Civil Emergency Service for the purpose of transmitting and receiving civil defense communications.

(c) *Civil defense communications.* Communications or signals essential to the conduct of civil defense activities of duly authorized civil defense organiza-

tions, including communications directly concerning safety of life, preservation of property, maintenance of law and order, alleviation of human suffering and need and dissemination of warnings of enemy attack to the civilian population in case of actual or impending armed attack or in any disaster or other incident endangering the public welfare. Such communications may also include transmissions necessary to establishment and maintenance of the radio system and communications essential to the training of civil defense personnel.

(d) *Civil defense authority.* The legally appointed Director of Civil Defense, or his authorized alternate or representative, for the particular geographical area (city, county, etc.) which a proposed radio station is intended to serve, and who is responsible to local governmental authority for protection and aid to the civilian population in the event of armed attack or of any disaster or other incident endangering public safety.

(e) *Civil Defense Communications Officer.* The official of any duly constituted civil defense organization having direct responsibility under the Director of that organization for the provision, organization, maintenance, readiness, and utilization of all means of communication to be used by such civil defense organization in the performance of its lawful functions.

(f) *Civil Defense Radio Officer.* The duly designated official of a legally constituted civil defense organization who is directly responsible either to the Communications Officer or to the Director of such civil defense organization for the provision, organization, maintenance, readiness, and utilization of radio communications facilities for civil defense use.

(g) *Radio Amateur Civil Emergency Network.* All radio amateur civil emergency stations intended to be included in the civil defense communications plan of the area concerned and which operate, or are to operate, in conjunction with a single control station. Such network may be made up of several separately authorized radio amateur civil emergency stations or units of such stations, or may be made up of several units of the same station operated at different locations. In addition, the same radio amateur civil emergency station or any unit of such station may be a part of

more than one network; e. g., the control station of one network may also be the control station or a member station of another network operated in conjunction therewith.

(h) *Control station.* The term "control station" or "net control station" means any authorized Radio Amateur Civil Emergency Station unit designated by the civil defense radio officer, with the approval of the Director of Civil Defense or the Civil Defense Communications Officer, to direct the use and operation of other station units of the same Radio Amateur Civil Emergency Network.

(i) *Civil defense communications plan.* A civil defense communications plan is the plan under which communications facilities are provided to all branches and phases of the civil defense organization in the area concerned and for all of its activities. Such plan may be drawn up in accordance with the needs of the particular area affected and the facilities, including licensed radio operators and stations, available in that particular area. Plans need not be uniform, but to be acceptable to the Commission they must comply with the following:

(1) The plan must be clearly described in writing, and it may include diagrams and sketches. It must include a general description of the facilities and personnel available to provide communications for civil defense purposes and the expected usage to be made thereof.

(2) The plan must have been approved by the state or territorial and federal civil defense authorities having jurisdiction of the area affected.

(3) The plan must include the name, address, official title, and a statement of the qualifications of the Civil Defense Radio Officer (and of any and all alternate Radio Officers) responsible for the organization, training, and utilization of the radio amateur civil emergency station networks under that plan, and the name, address, and official title of the civil defense official responsible for the coordination of all civil defense activities of the area concerned.

(4) The plan must include a general description of each radio amateur civil emergency station network under the jurisdiction of each respective Civil Defense Radio Officer, showing location of

fixed installations, purpose, area of activity to be served, an estimate of the number of radio amateur stations and independent operating units of such stations intended to be used in the network, and a description, including the location and call sign, of its control station and any alternate control station or stations.

(5) The plan must include a general statement as to the frequency bands to be used by the radio amateur civil emergency station networks and the approximate number of stations, or units of such stations, to be operated in each such band, together with a description of the method which has been adopted for liaison and coordination of frequency usage with other similar networks in the same and adjacent areas.

(6) The plan must include a statement setting forth the facilities available to the area and the procedures to be followed in determining the loyalty and general reliability of all civil defense Radio Officers, amateur radio station licensees and radio operators intended to be utilized in the implementation of that plan. (See §§ 12.214 (b), 12.215 (c) and 12.241 (a).)

§ 12.202 *Applicability of rules governing amateur radio stations and operators.* In all cases not specifically covered by the regulations contained in this subpart, licensed amateur stations authorized to be operated in the Radio Amateur Civil Emergency Service shall be governed by the provisions of the rules governing amateur radio stations and operators (Subpart A of this part) which are not in conflict herewith. In any case of conflict, the rules governing the Radio Amateur Civil Emergency Service shall govern in respect to any station operated in that service.

ORGANIZATION

§ 12.211 *Organization of networks.* To supplement or extend other means of communication available to the civil defense organization or to provide necessary communications for which no other means exist, local radio amateur civil emergency station networks shall be organized by the civil defense authority of the area concerned and under the immediate direction of the Civil Defense Radio Officer. Such networks shall include all licensed amateur radio stations which are intended to be included in the civil defense communications plan of the area concerned. In any particular area

there may be several such networks and each network may be independent of the others. Whenever there is more than one network in the same area, all such networks must share, under a single civil defense communications plan, the available frequencies in an efficient and orderly manner. The various networks in adjacent areas shall establish proper liaison and a description of the arrangements made shall become a part of their respective civil defense communications plans. Such arrangements shall provide for the efficient sharing of frequencies, plans for operating procedure designed to avoid mutual interference, and the exchange of communications facilities upon an inter-area basis where need for such exchange may arise.

§ 12.212 *Approval of civil defense communications plans.* (a) All civil defense communications plans which provide for the utilization of radio amateur civil emergency stations for civil defense purposes must be submitted to and approved by the responsible state (or territorial) and federal civil defense authorities before the licensed amateur stations intended to be used will be authorized to operate in the radio amateur civil emergency service.

(b) Material changes or modifications in such civil defense communications plans which alter the basic information required shall be submitted for approval in the same manner as the original plans.

(c) Written certification of approval by the competent state (or territorial) and federal civil defense authorities of each civil defense communications plan, or of any changes or modifications thereof, shall accompany the copies of such plans, changes, or modifications, which are submitted to the Commission in accordance with the provisions of this part.

§ 12.213 *Certification of Civil Defense Radio Officer.* (a) Certification of the Civil Defense Radio Officer shall be made on FCC Form 482. Such form shall be executed by the civil defense authority responsible for the coordination of all civil defense activities of the area concerned and show: (1) The name, address, and area of responsibility of such civil defense radio officer, (2) statement by him that he has accepted such appointment and agrees to perform faithfully the duties of that office, including those prescribed by this subpart, (3) a certification by the responsible civil defense

authority that he has satisfied himself that the named civil defense radio officer is fully qualified in accordance with the provisions of § 12.214, and (4) the effective date of the appointment of the civil defense radio officer and the name of any previous civil defense radio officer whose appointment is terminated.

(b) FCC Form No. 482, when completed in accordance with this section, shall be forwarded to the Commission via the responsible state (or territorial) and federal civil defense officials whose approval (or disapproval) shall be clearly indicated on the form.

§ 12.214 *Qualifications of Civil Defense Radio Officer.* No person shall be considered qualified as a civil defense radio officer until he shall have been found to satisfy the following minimum requirements:

(a) He shall hold either (1) a valid commercial radio operator's license of either first or second class (radiotelegraph or radiotelephone) issued by the Commission, or (2) a valid amateur operator license issued by the Commission, other than the Technician or Novice Class.

(b) A determination shall have been made as to his loyalty to the United States and his general reliability, in accordance with the procedures provided in the approved civil defense communications plan of the area concerned.

(c) It shall have been determined that his technical and administrative qualifications are adequate for the proper performance of his duties.

§ 12.215 *Duties of Civil Defense Radio Officer.* The duties of the Civil Defense Radio Officer shall include among such other duties as may be assigned or as may be required in accordance with the provisions of this subpart.

(a) The direction and supervision of all radio stations forming the radio amateur civil emergency networks in accordance with the approved civil defense communications plan for the area involved.

(b) Provision for adequate monitoring of all transmissions of the stations under his supervision to assure compliance with the rules and regulations of the Commission, and to guard against improper use of the radio stations and intentional or inadvertent transmissions which might jeopardize the defense or security of the United States.

(c) The recommendation to the Commission for the granting of authorizations to individual amateurs for operation in this service, and certification to the Commission as to the loyalty to the United States and reliability of such individuals and the certification required in accordance with § 12.223.

(d) The recommendation to the Commission for cancellation of any authorization previously recommended or certified whenever subsequent investigation or circumstances indicate that the original recommendation or certification should not have been made.

STATION AUTHORIZATIONS

§ 12.221 *Station authorization required.* No radio station may be operated in the Radio Amateur Civil Emergency Service except pursuant to an authorization for such operation issued by the Federal Communications Commission.

§ 12.222 *Eligibility for station authorization.* An authorization to operate a station in the Radio Amateur Civil Emergency Service will be issued only to a person who holds an amateur radio operator license, other than Technician or Novice Class, and an appropriate amateur radio station license.

§ 12.223 *Filing of application.* Each application for a station authorization shall be submitted on FCC Form 481-1, signed under oath or affirmation by the applicant and countersigned by the appropriate civil defense radio officer, who shall certify to the following:

(a) That the applicant has satisfied all requirements (both local and federal) for participation in the civil defense organization and is actually enrolled as a member of the local organization which serves the area where the station will operate.

(b) That the amateur station licensed in the name of the applicant has been approved for and, when authorized by the Commission, will actually constitute a unit of a civil defense communications network in accordance with an approved civil defense communications plan or amendment thereof.

§ 12.224 *Additional data required.* Each application for a station authorization in the Radio Amateur Civil Emergency Service shall be accompanied by the following data unless such material

has already been submitted to the Commission, in which case the application shall clearly identify the material previously submitted:

(a) A copy of the approved communications plan (as defined in this part) for the civil defense communications network in which the station will operate, together with a copy of each approved amendment, change or modification of that plan.

(b) The official certification of the Civil Defense Radio Officer as provided in this subpart.

§ 12.225 *Single application for all equipment under one amateur station license.* Only one application need be filed for any one amateur station, including all transmitting equipment under the control of the licensee of that station, even though individual units of such station are capable of being operated and are intended to be operated independently at different locations, or as portable or mobile stations with no fixed locations. No distinction need be made between those units which are personally owned by the amateur station licensee and those units which are otherwise under his technical control for operation in this service.

§ 12.226 *Issuance of station authorization.* An authorization to operate in this service, will be issued in the discretion of the Commission upon satisfactory completion of all requirements of this subpart and proper certification that the requirements of the civil defense organization for which the station will be used have been or are being complied with. The station authorization (Form 481-2) will be forwarded to the Civil Defense Radio Officer for delivery to the applicant. Such authorization will be accompanied by a stub (Form 481-3) which may be retained by the civil defense radio officer for his records.

§ 12.227 *Term of station authorization.* (a) Authorization to operate an amateur station in the Radio Amateur Civil Emergency Service will be issued for a term running concurrently with the term of the amateur radio station license. Application for renewal of such authorization shall be filed concurrently with application for renewal of the basic amateur radio station license.

(b) Whenever, under rules contained in Subpart A of this part, modification of the basic amateur station license be-

comes necessary, if such modification affects the information submitted with the original application for a license in this service, application for modification of the Radio Amateur Civil Emergency station license shall be submitted concurrently therewith.

(c) Nothing in this section shall be construed to alter or amend the temporary nature of a station authorization in the Radio Amateur Civil Emergency Service and the Commission's authority to cancel or amend it in accordance with the applicant's agreement as indicated on the initial application for station authorization.

§ 12.228 *Cancellation of station authorization.* (a) Each authorization for operation in the Radio Amateur Civil Emergency Service shall be issued with the express provision that such authorization is subject to revocation or cancellation without hearing whenever, in the opinion of the Commission, the security of the United States or the proper functioning of the Radio Amateur Civil Emergency Service would be served thereby, or termination of the national emergency makes it unnecessary to continue the operation of stations in this service.

(b) The station authorization shall be submitted to the Commission (via the Civil Defense Radio Officer) for cancellation under the following circumstances:

(1) The station for which the authorization was issued becomes inactive for a period of three months or it is not planned to use the station in the radio amateur civil emergency network for a period of at least three months.

(2) The basic amateur radio station license of the station has expired and has not been renewed.

(3) In cases where the amateur radio station license and the radio amateur civil emergency station authorization have both been modified, the original authorization of the latter shall be submitted to the Commission immediately upon receipt by the licensee of a new or modified authorization.

TECHNICAL REQUIREMENTS

§ 12.231 *Frequencies available.* (a) The following tabulation indicates the frequency bands, within the regularly allocated amateur frequency bands, which are available for use by stations in the

Radio Amateur Civil Emergency Service. These frequency bands may be used, on a non-exclusive basis, by the classes of radio amateur civil emergency stations or units of such stations indicated, and only with the types of emission shown in the right-hand column.

(1) For use only by authorized stations or units of such stations which are operated under the direct supervision of duly designated and responsible officials of the civil defense organization:

Frequency band:	Authorized emission
1800-1825 kc ¹ -----	0.1A1, 6A3.
1875-1900 kc ¹ -----	0.1A1, 6A3.
1900-1925 kc ¹ -----	0.1A1, 6A3.
1975-2000 kc ¹ -----	0.1A1, 6A3.
3500-3510 kc-----	0.1A1, 1.1F1.
3990-4000 kc-----	0.1A1, 1.1F1, 6A3, 6F3.

¹ Use of frequencies in the band 1800-2000 kc is subject to the priority of the Loran system of radionavigation in this band and to the geographical, frequency, emission, and power limitations contained in § 12.111 of the rules governing amateur radio stations and operators (Subpart A of this part). The use of these frequencies by stations authorized to be operated in the Radio Amateur Civil Emergency Service shall not be a bar to expansion of the radionavigation (Loran) service, and such use shall be considered temporary in the sense that it shall remain subject to cancellation or to revision, in whole or in part, without hearing, whenever the Commission shall deem such cancellation or revision to be necessary or desirable in the light of the priority within this band of the Loran system of radionavigation.

(2) For use by all authorized stations:

Frequency band:	Authorized emission
28.55-28.75 Mc-----	0.1A1, 6A3, 6A4, 6F3.
29.45-29.65 Mc-----	0.1A1, 1.1F1, 6A3, 6A4, 40F3.
50.35-50.75 Mc-----	0.1A1, 6A2, 6A3, 6A4, 6F3.
53.35-53.75 Mc-----	0.1A1, 1.1F1, 6A2, 6F2, 6A3, 6A4, 40F3.
145.17-145.71 Mc----	0.1A1, 1.1F1, 6A2, 6F2, 6A3, 6A4, 40F3.
146.79-147.33 Mc----	0.1A1, 1.1F1, 6A2, 6F2, 6A3, 6A4, 40F3.
220-225 Mc-----	0.1A1, 1.1F1, 6A2, 6F2, 6A3, 6A4, 40F3.

(b) The selection and use of specific frequencies within the authorized frequency bands by stations in the Radio Amateur Civil Emergency Service shall be in accordance with a coordinated local area and adjacent area civil defense communications plan and applicable rules of this part.

(c) At such time as any or all of these frequency bands are withdrawn from availability to stations operating in the

Amateur Radio Service, such bands shall be jointly available to stations in the Radio Amateur Civil Emergency Service and to stations in the military services for training and tactical operations. At that time, in areas where interference might occur, local mutual arrangements shall be made regarding times of operation such as to preclude or satisfactorily alleviate interference. In time of actual civil defense emergency, stations in the Radio Amateur Civil Emergency Service shall have absolute priority.

§ 12.232 Classification of emissions.

(a) For the purposes of this subpart, the authorized emissions, as contained in the table of § 12.231, are defined as follows:

- 0.1A1—Continuous wave telegraphy.
- 1.1F1—Frequency shift telegraphy.
- 6A2—Telegraphy amplitude modulated at audio frequency.
- 6F2—Telegraphy frequency modulated at audio frequency.
- 6A3—Commercial quality amplitude modulated telephony.
- 6F3—Narrow band frequency or phase modulated telephony.
- 40F3—Wide band frequency or phase modulated telephony.
- 6A4—Amplitude modulated facsimile.

(b) On frequencies where wide band frequency or phase modulated telephony (40F3) is authorized, narrow band frequency or phase modulated telephony (6F3) may also be employed; similarly, where commercial quality amplitude modulated telephony (6A3) is authorized, single or double sideband amplitude modulated telephony, with or without carrier or with reduced carrier, may also be employed.

§ 12.233 Transmitter power. The transmitting equipment of a radio station in this service shall be adjusted in such manner as to produce the minimum radiation necessary to carry out the communications desired. No station operating in this service shall use a direct current plate power input to the vacuum tube or tubes supplying energy to the antenna in excess of that permitted to be used by a licensed amateur radio station when operated on the same frequencies or in the same frequency bands in accordance with the provisions of the rules governing amateur radio stations and operators (Subpart A of this part).

§ 12.234 Equipment requirements.

(a) Except under the conditions specified in paragraph (b) of this section, all stations authorized to be operated in

the Radio Amateur Civil Emergency Service shall be capable of receiving on the same frequencies or frequency bands utilized for transmission.

(b) When a station in this service is operated only on a single frequency or frequency band for cross-band operation in communication with a station or stations operating on another frequency or in another frequency band, or in other services, such station shall be capable of receiving the station with which it is communicating.

(c) The direct modulation of an oscillator with a frequency stability less than that obtainable with crystal control, or the radiation of a signal having simultaneous amplitude and frequency or phase modulation, is prohibited on frequencies below 220 Mc after December 31, 1952.

§ 12.235 *Alleviation of harmful interference.* (a) When emissions of stations in the Radio Amateur Civil Emergency Service, other than those necessary to carry on the desired communications, cause harmful interference to stations in this or any other service, the Commission may, in its discretion, require appropriate technical changes in the equipment to alleviate the interference.

(b) When the emissions of stations in the Radio Amateur Civil Emergency Service that are necessary to carry on the desired communications cause harmful interference to stations in other radio services, appropriate action shall be taken to alleviate such interference including, if necessary, the suspension (except during times of an actual state of civil emergency) of such emissions as cause the interference.

OPERATING REQUIREMENTS

§ 12.241 *Operator requirements.* (a) No person shall operate a station in the Radio Amateur Civil Emergency Service unless (1) that person holds a valid radio operator license of the proper grade, as described in this section, and (2) that person holds a valid written certification by the chief of the local, regional, or state Civil Defense organization of the area in which he serves that he has satisfied all federal, state, and local requirements for enrollment in the Civil Defense organization as a radio operator and is actually enrolled therein. Such certification shall clearly indicate that a determination has been

made as to his loyalty to the United States and general reliability in accordance with the procedures described in the approved civil defense communications plan for the area concerned. (See §§ 12.201 (i) and 12.212.)

(b) The person manipulating the key of a manually operated radio-telegraph transmitter of a station authorized to operate in this service shall hold either (1) any class of amateur operator license issued by the Commission, other than the Technician or Novice Class, or (2) any class of commercial radiotelegraph operator license issued by the Commission other than the Temporary Limited Radiotelegraph Second Class Operator License, together with the certification required in accordance with the provisions of paragraph (a) of this section.

(c) Except as specifically provided in paragraphs (a) and (b) of this section, any station in the Radio Amateur Civil Emergency Service may be operated by the holder of any class of amateur or commercial radio operator license issued by the Commission other than a Temporary Limited Radiotelegraph Second Class Operator License or an Aircraft Radiotelephone Operator Authorization: *Provided*, That, when such operation is performed by the holder of a Novice Class amateur operator license or by the holder of a commercial radiotelephone or radiotelegraph third class operator license or restricted operator permit; (1) such operator shall be prohibited from making any adjustments that may result in improper transmitter operation, (2) the equipment shall be so designed and installed that none of the operations necessary to be performed during the course of the normal rendition of the service of the station may cause off-frequency operation or result in any unauthorized radiation, and (3) any needed adjustments of the transmitter that may affect the proper operation of the station shall be regularly made by or under the immediate supervision and responsibility of the holder of either an amateur operator license other than the Novice Class or a commercial radiotelephone or radiotelegraph first or second class operator license.

(d) All adjustments or tests during or coincident with the installation, servicing or maintenance of the transmitting equipment of a station in this service shall be made only by or under the im-

mediate supervision and responsibility of the holder of either (1) an amateur operator license other than the Novice Class or (2) a commercial radiotelephone or radiotelegraph first or second class operator license issued by the Commission, who in addition holds the certification required in accordance with the provisions of paragraph (a) of this section.

§ 12.242 *Operation at other than licensed location.* A station in this service, or any unit thereof, may be operated at any location in accordance with the approved civil defense communications plan for the area concerned, in the discretion of and as directed by the Civil Defense Radio Officer, without notice to the Commission and without limitation as to the length of time within which such operation takes place: *Provided*, That nothing in this section shall be construed to waive the necessity for modification of the authorization of a station in this service when the address of the licensee or the basic location of the station is changed, or for any other reason where, because of a change of the communications plan or other reason, the information heretofore furnished the Commission with the original application may be materially altered or changed.

§ 12.243 *Availability of station authorizations and operator licenses.* (a) The original station authorization permitting operation of the licensed amateur station in the Radio Amateur Civil Emergency Service, or a photocopy thereof, shall be permanently attached to each transmitter of such station, including each transmitter which is capable of being operated and intended to be operated independently at different locations, if the transmitter is readily accessible, or, if the control position is located at a place other than the transmitter location, it may be posted at the control position: *Provided*, That, whenever a photocopy of the station authorization is utilized in compliance with the foregoing requirement, the original station authorization shall be made available for inspection upon reasonable request from any authorized representative of the Federal Government.

(b) The original radio operator license, or a verification card (FCC Form 758-F) in the case of the holder of a commercial radio operator license of the diploma type, of the operator controlling the emissions of a station authorized to be operated in this service together with

the certification required by § 12.241 (a), shall be carried on his person or kept immediately available at the place where he is operating the station or any independent unit of a station: *Provided*, That, whenever a verification card (FCC Form 758-F) is utilized in compliance with the foregoing requirement, the original operator license shall be made available for inspection upon reasonable request from any authorized representative of the Federal Government.

(c) When a licensed amateur station, or an independent unit of such station, is operated at a location other than that shown in its license in compliance with the provisions of this subpart, the basic amateur station license required by Subpart A of this part need not be readily available at the station or unit location, but shall be made available for inspection upon reasonable request from any authorized representative of the Federal Government.

§ 12.244 *Radio station log.* (a) Except as otherwise expressly provided in this subpart, there shall be maintained at each radio amateur civil emergency station, or unit of such station, an accurate log of all operations. The following information shall be recorded in such station log:

(1) The name and address of the station licensee, the regularly assigned call sign of the station and unit number if any, the name of the radio amateur civil emergency network or networks in which the station is normally operated, and the d. c. plate power input to the vacuum tube or tubes supplying energy to the transmitting antenna system. This information need be entered only once in the log unless there is a change in any of the above items, but the original entry and each change shall show the date on which the entry was made.

(2) The date and time of beginning and end of each period during which the station was operated, the purpose of such operation, and the frequencies or bands of frequencies on which the operation took place.

(3) The call signs or other identification of all stations or units of such stations with which communications are established or attempted during such period of operation.

(4) The signature of the licensed operator on duty and in charge of the operation of the station or unit of such

station during each period of operation, and the signature of each licensed operator who manipulated the key of any manually operated radiotelegraph transmitter of such station or unit. The signature of the operator shall be entered with the date and time at the beginning and end of each period during which he performed the foregoing duties, and at least once on each page additional to the first page, covering the period for which he was the responsible operator. The signatures of any additional operators who operate the transmitter(s) during the regular watch of another operator and details to indicate the periods during which they operated the transmitter(s) shall be entered in the proper form.

(5) Upon completion of each period of operation for any purpose, there shall be entered in the log a summary of such operation describing the nature thereof and, if message traffic or other record communications were exchanged with other stations, an estimate of the amount of such traffic handled together with a report on any unusual delays which were experienced in the delivery of such messages.

(6) There shall be no erasure, obliteration, or destruction of any part of the log of any station or station unit. Corrections shall be made by striking out the erroneous portion and initialing and dating the corrections.

(b) Mobile radio amateur civil emergency stations or station units, and portable radio amateur civil emergency stations or station units, where not being operated at pre-determined fixed locations, shall be exempt from the requirements of maintaining a log to the extent that the entries required under the preceding paragraph of this section are substantially contained in the log of another station or stations operating in the same radio amateur civil emergency networks. All stations or station units operating in accordance with the provisions of this subpart shall be exempt from the requirements concerning station logs contained in Subpart A of this part whenever it is shown that compliance with these requirements would interfere with the expeditious handling of civil defense communications or communication drills.

(c) The current portion of the log shall be kept at the location of the operating or control position of the station or unit. Other portions of the log shall

be retained by the licensee for a period of one year, at a place determined by the civil defense Radio Officer to be appropriate and advisable: *Provided*, That the logs of a station in this service shall be made available for inspection upon reasonable request by any authorized representative of the Federal Government: *And provided further*, That those portions of any log covering operation of a station in this service in connection with any actual condition jeopardizing the public safety or affecting the national defense or security shall not be destroyed unless prior approval for such destruction shall have been received from the Commission.

§ 12.245 *Station identification.* (a) Stations operating in the Radio Amateur Civil Emergency Service shall identify themselves in the same manner and under the same conditions as prescribed in the rules governing Amateur Radio Stations and Operators (Subpart A of this part), except that:

(1) Additional designators to indicate portable or mobile operation, or to indicate operation at a location other than that specified in the station license, shall not be used.

(2) When engaged in network operation, after a station or unit has been fully identified at least once, further identification by that station or unit may be accomplished by the use of abbreviated call signs or other distinctive signals prescribed by the civil defense Radio Officer in lieu of the call signs otherwise required to be transmitted by that station or unit. A record of such abbreviated call signs or other distinctive signals shall be maintained by the Radio Officer and shall be made available for inspection upon reasonable request by any authorized representative of the Federal Government.

(b) When two or more separate units of a station, which is authorized to be operated in the Radio Amateur Civil Emergency Service, are operated independently at different locations, each unit shall separately identify itself by the addition of a unit number at the end of its call sign. When transmitting by telegraphy such additional identification shall immediately follow the basic call sign and to avoid confusion with portable or mobile indicators, shall not be separated therefrom by the use of the "slant" or fraction bar, or other punctuation mark or symbol.

§ 12.246 *Tactical call signs.* Stations operating in this service, and independent units of such stations, may be assigned tactical or secret call signs by the Commission or by competent civil defense authority, and may utilize such tactical call signs in lieu of the call signs appearing on the station licenses when such use is directed by competent civil defense authority: *Provided*, That a list of all such tactical call signs assigned stations under his direction shall be maintained by the civil defense Radio Officer and shall be made available for inspection upon reasonable request by any authorized representative of the Federal Government: *And provided further*, That when such tactical call signs are intended to be used at times other than during communications in connection with actual or impending conditions which appear to jeopardize the defense or security of the United States, a list of such tactical call signs and the stations or units to which assigned shall be furnished the Commission prior to such use.

USE OF STATIONS

§ 12.251 *Limitations on use of stations.* (a) No station authorized to be operated at this service, other than a control station as defined in this subpart, shall be operated for the purpose of transmitting any signal, message, or other communications except with the permission and under the operational control of the control station of the network in which it is operating: *Provided*, That nothing in the foregoing shall be construed to prohibit the transmission by any station or unit of a station of such signals as may be necessary for the purpose of alerting or making contact with the control station of the network, or for the purpose of transmitting actual emergency civil defense communications if the control station is disabled or is otherwise inoperative.

(b) Nothing in this section shall be construed to prevent the operation of a station which is authorized to be operated in this service for the purpose of brief tests or adjustments during or coincident with the installation, servicing or maintenance of such station: *Provided*, That the transmissions of that station during such tests or adjustments shall not cause harmful interference to the conduct of communications by any other station.

(c) No station in this service shall be used to transmit or to receive messages for hire, nor to transmit communications for material compensation, direct or indirect, paid or promised.

§ 12.252 *Hours of operation.* Stations in this service may be operated at such times and under such conditions as may be prescribed by the Communications Officer or other responsible official of the civil defense organization having jurisdiction over the area which the station will serve: *Provided*, That the communications of such stations shall at all times be in accordance with the permissible communications authorized in this subpart.

§ 12.253 *Points of communication.* Stations in this service may communicate with each other, with stations in the Disaster Communications Service, and with stations of the United States Government which are authorized to exchange communications with stations in this service by the particular agency having control. In addition, stations in this service may communicate, for the purpose of exchanging civil defense communications, with any other station in any service provided by the Commission's rules, whenever such station is authorized to communicate with stations in the Radio Amateur Civil Emergency Service by the provisions of the Commission's rules governing the class of station concerned or in accordance with the provisions of § 2.405 of this chapter.

§ 12.254 *Permissible communications.* Stations in this service are authorized to transmit only the following types of civil defense communications:

(a) Communications for training purposes: Necessary drills and tests to insure establishment and maintenance of orderly and efficient operation of the radio amateur civil emergency networks and such other radio stations and networks as may be associated therewith for the conduct of civil defense communications, including communications directly concerned with the conduct of practice alerts, practice blackouts, practice mobilization, and other comparable situations as may be ordered or initiated by competent civil defense authority or by the United States governmental or military authority charged with the defense of the area concerned. All messages which are transmitted in connec-

tion with such drills and tests shall be clearly identified as such by the use of the words "Drill" or "Test" in the body of such messages.

(b) Communications when there is an impending or actual condition jeopardizing the public safety or affecting the national defense or security:

(1) Communications directly concerning the activation of the radio amateur civil emergency station networks or such other radio stations and networks as may be associated with the networks for the conduct of civil defense communications.

(2) Communications directly concerning the conduct of service by the radio amateur civil emergency networks and such other radio stations and networks as may be associated therewith.

(3) Communications directly concerning safety of life, preservation of property, maintenance of law and order, alleviation of human suffering and need, and combating of armed attack or sabotage.

(4) Communications directly concerning the accumulation and dissemination of public information or instructions to the civilian population essential to the activities of the civil defense organization or that of other authorized governmental or relief agencies.

(5) Communications directly concerning the transaction of business essential to public welfare

§ 12.255 *Use of codes and ciphers.* Any station in this service is authorized to transmit messages in codes and ciphers and to utilize any method of secret or coded authentication of its transmissions when such method of concealing the contents of messages or such authentication procedure is prescribed by the competent civil defense authority of the area served by the station and is approved by the cognizant federal civil defense authorities.

§ 12.256 *Priority of communications.* The order of priority of communications by stations in this service, when there is an impending or actual condition jeopardizing the public safety or affecting the defense or security of an area, shall be determined by the cognizant civil defense authority of the area concerned or his authorized representative.

§ 12.257 *Operating procedure.* The operating procedure, and the method of circuit control by the control station of each network, shall be determined by the responsible civil defense authority of the area concerned and shall, in general, conform as nearly as possible to the operating procedure normally followed in other services in the expeditious handling of message traffic by the method of transmission in use.

APPENDIX 1

EXAMINATION POINTS

Examinations for amateur radio operator licenses are conducted at the Commission's office in Washington, D. C., Monday through Friday, except holidays (office hours are from 8:30 a. m. to 5 p. m.), and at each radio district office of the Commission on the days designated by the Engineer in Charge of the office. Specific dates should be obtained from the Engineer in Charge. For a list of such offices see the following pages.

Examinations are also given frequently, by appointment, at the Commission's offices at the following points:

Tampa, Fla.	Mobile, Ala.
Juneau, Alaska.	Savannah, Ga.
Anchorage, Alaska.	San Diego, Calif.

Examinations are also given at greater intervals at the places named below, which are visited for that purpose by Commission examiners from the district offices for such locations. For current schedules, exact time, place, and other details, inquiry should be addressed to the office conducting examinations at the chosen point.

QUARTERLY POINTS

Birmingham, Ala.	Nashville, Tenn.
Charleston, W. Va.	Oklahoma City, Okla.
Cincinnati, Ohio.	Omaha, Nebr.
Cleveland, Ohio.	Phoenix, Ariz.
Columbus, Ohio.	Pittsburgh, Pa.
Corpus Christi, Tex.	St. Louis, Mo.
Davenport, Iowa.	Salt Lake City, Utah.
Des Moines, Iowa.	San Antonio, Tex.
Fort Wayne, Ind.	Schenectady, N. Y.
Fresno, Calif.	Sioux Falls, S. Dak.
Grand Rapids, Mich.	Syracuse, N. Y.
Indianapolis, Ind.	Tulsa, Okla.
Jackson, Miss.	Williamsport, Pa.
Knoxville, Tenn.	Winston-Salem, N. C.
Little Rock, Ark.	
Memphis, Tenn.	
Milwaukee, Wis.	

SEMIANNUAL

Albuquerque, N. Mex.	Butte, Mont.
Amarillo, Tex.	El Paso, Tex.
Bakersfield, Calif.	Hartford, Conn.
Boise, Idaho.	Hilo, Hawaii, T. H.
	Jacksonville, Fla.

SEMIANNUAL—continued

Lihue, Kauai, T. H. Tucson, Ariz.
 Louisville, Ky. Wichita, Kans.
 Portland, Maine. Wilmington, N. C.
 Roanoke, Va. Walluku, Maul,
 Spokane, Wash. T. H.

ANNUAL

Bangor, Maine. Marquette, Mich.
 Billings, Mont. Rapid City, S. Dak.
 Jamestown, N. Dak. Springfield, Mo.
 Klamath Falls, Oreg. Tallahassee, Fla.
 Manchester, N. H.

Arrangements have also been made, including cooperation of other Federal agencies, for General Class examinations in outlying areas as follows:

Alaska: United States Signal Corps stations.

Guam: District Communications Officer, United States naval station.

Hawaii: At not exceeding one point on any island, by the Engineer in Charge (Honolulu).

Canal Zone: By the Engineer in Charge, District 22 (San Juan, P. R.).

RADIO DISTRICTS

Radio district	Address of the engineer in charge	Territory within district	
		States, etc.	Counties
1	1600 Customhouse, Boston 9 Mass.	Connecticut..... Maine..... Massachusetts..... New Hampshire..... Rhode Island..... Vermont..... New Jersey.....	All counties. Do. Do. Do. Do. Do. Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, and Warren.
2	748 Federal Bldg., 641 Washington St., New York 14, N. Y.	New York.....	Albany, Bronx, Columbia, Delaware, Dutchess, Greene, Kings, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Schenectady, Suffolk, Sullivan, Ulster, and Westchester.
3	Room 1005, New United States Customhouse, 2nd and Chestnut Sts., Philadelphia 6, Pa.	Delaware..... New Jersey..... Pennsylvania.....	New Castle. Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem. Adams, Berks, Bucks, Carbon, Chester, Cumberland, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Perry, Philadelphia, Schuylkill, and York.
4	508 Old Town Bank Bldg., Gay St. and Fallsway, Baltimore 2, Md.	Delaware..... Maryland..... Virginia..... West Virginia.....	Kent and Sussex. All except district 24. Clarke, Fairfax except district 24, Fauquier, Frederick, Loudoun, Page, Prince William, Rappahannock, Shenandoah, and Warren. Barbour, Berkeley, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marion, Mineral, Monongalia, Morgan, Pendleton, Preston, Randolph, Taylor, Tucker, Upshur.
5	Room 402, Federal Bldg., Norfolk 10, Va.	North Carolina..... Virginia.....	All except district 6. All except districts 4 and 24.
6	411 Federal Annex, Atlanta 3, Ga. Suboffice, P. O. Box 77, 214 Post Office Bldg., York and Bull Sts., Savannah, Ga.	Alabama..... Georgia..... North Carolina..... South Carolina..... Tennessee..... Florida.....	All except district 8. All counties. Ashe, Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Cleveland, Graham, Haywood, Henderson, Jackson, McDowell, Macon, Madison, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, and Yancey. All counties. Do. All except district 8.
7	P. O. Box 150, 312 Federal Bldg., Miami 1, Fla. Suboffice, 419 P. O. Bldg., Florida Ave., Tampa 2, Fla.	Alabama..... Arkansas..... Florida..... Louisiana..... Mississippi..... Texas.....	Baldwin and Mobile. All counties. Escambia. All counties. Do. City of Texarkana only.
8	400 Audubon Bldg., New Orleans 16, La. Suboffice, 419 U. S. Court-house and Customhouse, Mobile 10, Ala.		

RADIO DISTRICTS—Continued

Radio district	Address of the engineer in charge	Territory within district	
		States, etc.	Counties
9	324 U. S. Appraisers Stores Bldg., 7300 Wingate St., Houston 11, Tex. Suboffice, P. O. Box 1527, 329 Post Office Bldg., 300 Willow St., Beaumont, Tex.	Texas.....	Angelina, Aransas, Atascosa, Austin, Bandera, Bastrop, Bee, Bexar, Blanco, Brazoria, Brazos, Brooks, Burleson, Caldwell, Calhoun, Cameron, Chambers, Colorado, Comal, De Witt, Duval, Dimmit, Edwards, Fayette, Fort Bend, Frio, Galveston, Gillespie, Goliad, Gonzales, Grimes, Guadalupe, Hardin, Hays, Harris, Hidalgo, Jackson, Jasper, Jefferson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kendall, Kerr, Kinney, Kleberg, La Salle, Lavaca, Lee, Liberty, Live Oak, Matagorda, Madison, Maverick, McMullen, Medina, Montgomery, Nacogdoches, Newton, Mueces, Orange, Polk, Real, Refugio, San Augustine, San Jacinto, San Patricio, Sabine, Starr, Travis, Trinity, Uvalde, Val Verde, Victoria, Walker, Waller, Washington, Webb, Wharton, Willacy, Williamson, Wilson, Zapata, Zavala, and Tyler.
10	P. O. Box 5238, 500 U. S. Terminal Annex Bldg., Houston, and Jackson Sts., Dallas 2, Tex.	New Mexico..... Oklahoma..... Texas.....	All counties. Do. All except district 9 and the city of Texarkana.
11	539 U. S. Post Office and Courthouse Bldg., Temple and Spring Sts., Los Angeles 12, Calif. Suboffice, 15-C U. S. Customhouse Bldg., Union and "F" Sts., San Diego 1, Calif.	Arizona..... California..... Nevada.....	All counties. Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura, Clark.
12	323-A Customhouse, San Francisco 26, Calif.	California..... Nevada.....	All except district 11. All except Clark.
13	307 Fitzpatrick Bldg., 919 S. W. Oak St., Portland 5, Oreg.	Idaho..... Oregon..... Washington.....	All except district 14. All counties. Wahkiakum, Cowlitz, Clark, Skamania, and Klickitat.
14	801 Federal Office Bldg., Seattle 4, Wash.	Idaho..... Montana..... Washington.....	Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis Nez Perce, and Shoshone. All counties. All except district 13.
15	521 New Customhouse, 19th St. between California and Stout Sts., Denver 2, Colo.	Colorado..... Utah..... Wyoming..... Nebraska..... South Dakota.....	All counties. Do. Do. Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Scotts Bluff, Sheridan, Sioux. Butte, Custer, Fall River, Lawrence, Meade, Pennington, Shannon, Washington
16	208 Uptown Post Office and Federal Courts Bldg., 5th and Washington Sts., St. Paul 2, Minn.	Minnesota..... Michigan..... South Dakota..... North Dakota..... Wisconsin.....	All counties. Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, and Schoolcraft. All except district 15. All counties. All except district 18.
17	3200 Federal Office Building, 911 Walnut Street, Kansas City 6e, Mo.	Iowa..... Kansas..... Missouri..... Nebraska.....	Do. All counties. Do. All except district 15.
18	826 U. S. Courthouse, 219 South Clark St., Chicago 4, Ill.	Illinois..... Indiana..... Iowa..... Wisconsin..... Kentucky.....	All counties. Do. Allamekee, Buchanan, Cedar, Clayton, Clinton, Delaware, Des Moines, Dubuque, Fayette, Henry, Jackson, Johnson, Jones, Lee, Linn, Louisa, Muscatine, Scott, Washington, and Winnebago. Brown, Columbia, Calumet, Crawford, Dane, Dodge, Door, Fond du Lac, Grant, Green, Iowa, Jefferson, Kewaunee, Kenosha, Lafayette, Manitowoc, Marinette, Milwaukee, Ozaukee, Oconto, Outagamie, Racine, Richland, Rock, Sauk, Sheboygan, Walworth, Washington, Waukesha, and Winnebago. All except district 19.

RADIO DISTRICTS—Continued

Radio district	Address of the engineer in charge	Territory within district	
		States, etc.	Counties
19	1029 New Federal Bldg., Detroit 26, Mich.	Kentucky.....	Bath, Bell, Boone, Bourbon, Boyd, Bracken, Breathitt, Campbell, Carter, Clark, Clay, Elliott, Estill, Fayette, Fleming, Floyd, Franklin, Gallatin, Garrard, Grant, Greenup, Kenton, Harlan, Harrison, Jackson, Jessamine, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, Madison, Magoffin, Martin, Mason, McCreary, Menifee, Montgomery, Morgan, Nicholas, Owen, Owsley, Pendleton, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Scott, Wayne, Whitley, Wolfe, Woodford.
		Ohio.....	All counties.
		Michigan.....	All except district 16.
		West Virginia.....	All except district 4.
20	328 Post Office Bldg., Elliott and Swan Streets, Buffalo 3, N. Y.	New York.....	All except district 2.
21	502 Federal Bldg., Honolulu 1, T. H.	Pennsylvania.....	All except district 3.
		Territory of Hawaii and outlying Pacific possessions, except Alaska and adjacent islands.	
22	P. O. Box 2987, 322-323 Federal Bldg., San Juan 13, P. R.	Puerto Rico, Virgin Islands.	
23	P. O. Box 1421, 7-8 Shattuck Bldg., Third and Seward Sts., Juneau, Alaska. Suboffice, 53 U. S. P. O. and Court House, P. O. Box 644, Anchorage, Alaska.	Alaska.	
24	104 Briggs Bldg., 22d and E NW., Washington 25, D. C.	District of Columbia Maryland.....	Within 10 miles of the District of Columbia boundary.
		Virginia.....	Do.

APPENDIX 2

EXTRACTS FROM RADIO REGULATIONS

ANNEXED TO THE INTERNATIONAL TELECOMMUNICATION CONVENTION

(Atlantic City, 1947)

ARTICLE 42—AMATEUR STATIONS

SECTION 1. Radiocommunications between amateur stations of different countries shall be forbidden if the administration of one of the countries concerned has notified that it objects to such radiocommunications.

SEC. 2. (1) When transmission between amateur stations of different countries are permitted they must be made in plain language and must be limited to messages of a technical nature relating to tests and to remarks of a personal character for which, by reason of their unimportance, resource to the public telecommunications service is not justified. It is absolutely forbidden for amateur stations to be used for transmitting international communications on behalf of third parties.

(2) The preceding provisions may be modified by special arrangements between the countries concerned.

SEC. 3. (1) Any person operating the apparatus in an amateur station must have proved that he is able to transmit, and to receive by ear, texts in Morse code signals. Administrations concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 1000 (one thousand) Mc/s.

(2) Administrations shall take such measures as they judge necessary to verify the qualifications, from a technical point of view, of any person operating the apparatus of an amateur station.

SEC. 4. The maximum power of amateur stations shall be fixed by the administrations concerned, having regard to the technical qualifications of the operators and to the conditions under which these stations must work.

SEC. 5. (1) All the general rules of the Convention and of the present Regulations shall apply to amateur stations. In particular, the transmitting frequency must be as constant and as free from harmonics as the state of technical development for stations of this nature permits.

(2) During the course of their transmissions amateur stations must transmit their call sign at short intervals.

APPENDIX 3

CLASSIFICATION OF EMISSIONS

For convenient reference the tabulation below is extracted from the "Classification of Emissions" tables in Part 2 of the Commission's Rules and Regulations and in the Atlantic City (1947) Radio Regulations, and it includes only those general classifications which appear most applicable to the Amateur Radio Service.

Type of modulation or emission	Type of transmission	Symbol
1. Amplitude.....	Absence of any modulation..	A0
	Telegraphy without the use of modulating audio frequency (on-off keying).	A1
	Telegraphy by the keying of a modulating audio frequency or audio frequencies or by the keying of the modulated emission (special case: an unkeyed modulated emission).	A2
	Telephony.....	A3
	Facsimile.....	A4
2. Frequency (or phase) modulated.	Telephony.....	A5
	Absence of any modulation..	F0
	Telegraphy without the use of modulating audio frequency (frequency shift keying).	F1
	Telegraphy by the keying of a modulating audio frequency or audio frequencies or by the keying of the modulated emission (special case: an unkeyed emission modulated by audio frequency).	F2
	Telephony.....	F3
3. Pulsed emissions.	Facsimile.....	F4
	Television.....	F5
	P

APPENDIX 4

Convention Between the United States of America and Canada, Relating to the Operation by Citizens of Either Country of Certain Radio Equipment or Stations in the Other Country (Effective May 15, 1952)

ARTICLE III

It is agreed that persons holding appropriate amateur licenses issued by either country may operate their amateur stations in the territory of the other country under the following conditions:

(a) Each visiting amateur may be required to register and receive a permit before operating any amateur station licensed by his government.

(b) The visiting amateur will identify his station by:

(1) *Radiotelegraph operation.* The amateur call sign issued to him by the licensing country followed by a slant (/) sign and the amateur call sign prefix and call area number of the country he is visiting.

(2) *Radiotelephone operation.* The amateur call sign in English issued to him by

the licensing country followed by the words, "fixed," "portable" or "mobile", as appropriate, and the amateur call sign prefix and call area number of the country he is visiting.

(c) Each amateur station shall indicate at least once during each contact with another station its geographical location as nearly as possible by city and state or city and province.

(d) In other respects the amateur station shall be operated in accordance with the laws and regulations of the country in which the station is temporarily located.

Part 13—Commercial Radio Operators

GENERAL

- Sec.
- 13.1 Licensed operators required.
- 13.2 Classes of operator licenses.
- 13.3 Dual holding of licenses.
- 13.4 Term of licenses.
- 13.5 Eligibility for new license.
- 13.6 Operator license, posting of.
- 13.7 Operators, place of duty.

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- 13.11 Procedure.
- 13.12 Special provisions, radiotelegraph first class.

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- 13.21 Examination elements.
- 13.22 Examination requirements.
- 13.23 Form of writing.
- 13.24 Passing mark.
- 13.25 New class, additional requirements.
- 13.26 Canceling and issuing new licenses.
- 13.27 Eligibility for reexamination.
- 13.28 Renewal service requirements, renewal examinations, and exceptions.

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- 13.41 Transmitting speed requirements.
- 13.42 Transmitting test procedure.
- 13.43 Receiving speed requirements.
- 13.44 Receiving test procedure.
- 13.45 Computing words or code groups.

SCOPE OF AUTHORITY

- 13.61 Operating authority.
- 13.62 Special privileges.
- 13.63 Operator's responsibility.
- 13.64 Obedience to lawful orders.
- 13.65 Damage to apparatus.
- 13.66 Unnecessary, unidentified, or superfluous communications.
- 13.67 Obscenity, indecency, profanity.
- 13.68 False signals.
- 13.69 Interference.
- 13.70 Fraudulent licenses.

MISCELLANEOUS

- 13.71 Issue of duplicate or replacement licenses.
- 13.72 Exhibiting signed copy of application.
- 13.73 Verification card.